# Antiquity

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## Editorial Notes

THE news from Jericho, reported here in Sir Mortimer Wheeler's article, is the most exciting we have heard for a long time. Dr Kathleen Kenyon's excavations there have proved that, at a date which seems to be not later than 6000 B.C., the inhabitants had built a sturdy stone wall round their village and strengthened it with a tower and a defensive ditch outside, dug in the hard rock. They also made a stone staircase to the tower, formed of well-dressed stones. The whole of this was covered by a layer of earth 45 feet thick, which contains no pottery and belongs therefore to the period before the invention of pottery. The discovery of this pre-pottery neolithic period was made at Jericho in 1952 (see Dr Kenyon's article in ANTIQUITY, XXVI, 1952, 116–22); last season's work shows not only that it was of immense duration, to be measured in millennia rather than in centuries, but that the people then living there were no squalid savages but people who had already begun to be civilized. They were no nomadic hunters but were obviously settled permanently on a spot which they defended against potential attack. They were able to do this because they had already invented (or acquired) agriculture and so were able to accumulate a surplus supply of food.

These discoveries are revolutionary; they carry back the origins of civilization to a period far earlier than anything that has hitherto been found in Egypt or Mesopotamia. Sir Mortimer gives his reasons for believing that civilization originated in oases rather than in the big river valleys, which are subject to flooding. That is a perfectly legitimate inference from the Jericho evidence; but perhaps one ought to remember that, in those valleys, the oldest deposits are now below the water-table and therefore inaccessible to excavators. Obviously Jericho was not the only oasis to be inhabited at a very early date, though its copious spring must have given it an advantage over those less well supplied. There must have been others, and one wonders what may be hidden in such age-old centres of habitation as Damascus and Aleppo and many others. Nor should one forget that there are still vast blank spaces on the excavation-map beyond the Persian Gulf. The uncovering of deep deposits on such sites is not, however, a light task; it requires a high degree of skill and organization, and strong financial backing.

To appreciate what these remarkable discoveries mean we should look at them against the background of European prehistory. In Scandinavia the last phase of the Ice Age was just coming to an end; the great ice sheet, which had once extended as far south as Berlin, had shrunk into two big ice-caps; Britain was joined to the continent, and the earliest mesolithic settlers lived on the edge of a small lake in Yorkshire at a cultural level equivalent to the Siberians, or lower.

These comparisons are made possible only by the new techniques of dating developed in northern Europe and America during the last few decades, of which by far the most valuable is the radiocarbon method, because it gives an approximate age in years. The dates thus acquired agree nicely with others reached by means of varve-counting in Scandinavia. In the Middle East we are entirely dependent on radiocarbon, and it is satisfactory that, thanks to Professor Zeuner and others, we can now do the work ourselves in England. The Jericho excavations are sponsored by the Palestine Exploration Fund, the British School of Archaeology in Jerusalem, and the British Academy, and donations to the Jericho Excavation Fund will be most gladly received at 2 Hinde Street, London, W. 1.

It is good news that something is to be done at last about the ancient field-systems, whose obliteration we deplored in our last number. The matter has been taken up by the Royal Commission on Historical Monuments (England), which has persuaded the Treasury to authorize an increase in its staff for the express purpose of recording them by plans. It is too much to hope that all such systems can be saved from obliteration, but at least we can hope that they will not perish unplanned, and that special measures will be taken to preserve some of the best examples. It is often overlooked that that is one of the functions of the Royal Commission; the Royal Warrant instructs the Commissioners "to specify those [monuments and constructions] which seem most worthy of preservation," and each Report contains a list of those thus specified; the last Report published (West Dorset, 1952) contained a list of 110 such monuments. Whatever measures are taken must be taken quickly; some of the best systems have already gone, and others are threatened; there is no time to lose. In Scotland, where the problem is also important though far less formidable, equivalent action has been taken by the Scottish Royal Commission.

Every modern country follows a standard system of grammar, spelling, and punctuation which has come to be accepted because of its obvious convenience. We try in ANTIQUITY to conform with the style recommended by such generally approved authorities as Fowler's *Modern English Usage* and the *Oxford English Dictionary*. Unfortunately there are many occasions when these authorities give no help, for in a subject which, like archaeology, is growing rapidly, new words or combinations of words arise to describe new things. An example is the use of the word Henge for those round or oval British earthworks consisting of a bank and ditch and regarded as constructed for religious rites. Should it be printed Henge, henge or -henge? We think Henge is best, and shall print it thus in future. The word is etymologically indefensible but it fills a need and has come to stay. (It is, of course, derived from 'Stonehenge', which is an Anglo-Saxon word meaning 'Stone gallows').

But there are also creeping into archaeological writings certain variations which are just plain errors. We have often to use the word 'millennium', and it is coming to be spelt, even by those who should know better, 'millenium'. This is wrong, and is unsupported by our authorities for sound reasons (see Fowler). Other deviations from conventional style and language are forced upon us by the press and the typewriter. The newspapers have ordained that *all* nouns of multitude, such as 'government', 'committee', 'company', 'firm', *must* have a plural verb; and we believe that they have

even drawn up regulations for the guidance of their staff on the subject. As Fowler quite rightly says: 'Any attempt to elaborate rules would be waste labour'. Style should conform with the spoken language, and no educated person says 'the firm think'. Or take punctuation; why is the semi-colon becoming extinct? It is a most useful break in a sentence, but it is falling out of use, and some typewriters today are made without it. Instead, the colon is used—a stop that had almost fallen out of use, except (as Fowler says) in its function 'of delivering the goods invoiced in the preceding words'. Typewriting from written manuscripts is also responsible for the use of commas to separate complete sentences—an unpardonable illiteracy. We encounter all these shortcomings in articles submitted to us for publication, and the correction of them both creates unnecessary work and also makes the script untidy and more difficult to set up in print. We shall continue, however, to correct them because we refuse to submit to a deformation of the English language imposed by newspapers and the manufacturers of typewriters.

On Midsummer Day a body of people calling themselves 'Druids' assemble at Stonehenge to watch the sunrise. They take themselves more seriously than we and others do, but they are quite harmless and are entitled to carry out their rites without molestation. This year they were subjected to a disgraceful display of hooliganism by Army Officers stationed on Salisbury Plain. Smoke bombs and thunder-flashes were thrown and the 'Druids' were molested. The offenders were mostly junior officers, but amongst them was a Lieutenant-Colonel. This is not the first time that rowdyism has occurred there on Midsummer Day, nor is it confined to that day. Not long ago some tank guns were placed during the night on the top of the trilithons. These foolish pranks are not only discreditable to the Army but might also do irreparable harm to our most famous national monument. So far as we know, no disciplinary action was taken by the military authorities. We wish to call their attention to the matter and suggest that Stonehenge should in future be placed out of bounds to all ranks on the night preceding Midsummer Day; and that hooliganism of all kinds should be forbidden at any time.

This year Professor Gordon Childe is retiring from the professorship of archaeology at London University Institute of Archaeology, where he is being succeeded by Mr John B. Evans (who contributed an important article to our last number). As a tribute to a great prehistorian the Prehistoric Society, of which he was the first President, is presenting to him the 21st volume of their *Proceedings*, containing twenty-six essays written in his honour, a bibliography of his writings, about 310 pages of text and 30 plates. Members of the Prehistoric Society will of course receive this free, but for those who are not, a limited edition has been printed and bound, and will be available for purchase (price £2 2s.) when this number of ANTIQUITY is published. The volume can be obtained direct from John Bellows Ltd. (Eastgate, Gloucester), from the Assistant Secretary, Miss Bull, 11a Kensington Church Street, London, W.8, or from H. K. Lewis, 136 Gower Street, London, W.C.1. We have seen the list of contents and can confidently recommend our readers to buy it.

# The First Towns?

by Sir Mortimer Wheeler

'GUNPOWDER, Printing and the Protestant Religion', said Thomas Carlyle in 1827, are 'the three great elements of modern civilization'. I wish we could be as contentedly concise about the more ancient varieties. What indeed are the primary qualities of urbanity? At what definable point did Man step across that thin borderline between *rus* and *urbs*? The question matters; the moment at which Man first became something more than a brigand or a hind (without necessarily losing either of those characters) was a climactic one. It counts for a great deal in our estimate of human achievement.

Recently, new evidence has emerged which suggests a reappraisement of this episode, in however provisional a fashion. But we must begin at the beginning with a clear prefatory definition of the abused term 'civilization'. Toynbee, as we know, is content to apply it to one or other of twenty-one societies which form 'intelligible fields of study' of a higher grade, standing out amongst a vast number of more localized and transient societies of minor import. His definition remains implicit. Frankfort, involved in Mesopotamia and Egypt, flatly declines to be led astray into civilization in the abstract. Gordon Childe is less diffident. Civilization, to him, is 'the aggregation of large populations in cities: the differentiation within these of primary producers (fishers, farmers, etc.), full-time specialist artisans, merchants, officials, priests, and rulers; an effective concentration of economic and political power; the use of conventional symbols for recording and transmitting information (writing), and equally conventional standards of weights and measures of time and space leading to some mathematical and calendrical science'[1]. If this brave attempt be excessively definite, that is the native fault of definition. I would myself accept it wholeheartedly save for the inclusion of writing as a primary factor. This I should prefer to regard as a secondary consequence of civic life, just as one must regard irrigation as a secondary consequence of agriculture. In the last push, it is the old question of the hen and the egg.

In tabular form, the following may be suggested as the two inherent elements of civilization:—

(1) A settled community of a size sufficient to support specialists outside the normal range of food-production.

(2) Public works and needs implying an organized and durable administration.

All else stems from these two basic conditions: rulers and (or) priests, craftsmen and builders, engineers, soldiers, civil-servants, traders, and, of course, food-producers. A permanent and accessible water-supply is subsumed.

From these generalities let us turn to the conventional view as to the emergence of civilization. This is still substantially that presented *inter alios* by Childe and Frankfort[2]: civilization, as we know it, appeared first in Mesopotamia about, or soon after, the middle

[1] *Social Evolution*, London, 1951, p. 161.

[2] V. Gordon Childe, *New Light on the Most Ancient East*, London, 3rd ed., 1952; Henri Frankfort, *The Birth of Civilization in the Near East*, London, 1951.

of the fourth millennium. Heine-Geldern, reassessing old tenets, has derived all the civilizations of the world, including China and pre-Columbian America, from this root[3]. That thesis will not be argued here; on the premises it may be correct; but the premises are perhaps less complete than has generally been assumed.

Briefly, the accepted evidence is this. During the central of the three pre-dynastic phases recognized in southern Mesopotamia—that known as the Uruk period from the site of Erech on the Euphrates—considerable permanent settlements focused on an imposing temple-tower were established at Erech itself, Eridu, Lagash and Ur in Sumer and at Uqair in Akkad. Wheeled vehicles and the potter's wheel came into use; specialized crafts abounded; accounts were kept; and state or urban discipline was sufficient to sustain constructional work on an astounding scale[4]. Urbanization was in full swing. Even allowing a considerable time for the Uruk phase, and assuming that, once begun, the progress of civilization was rapid, it is not easy to suppose that the Uruk city-states were altogether without precedent. How far that precedent should be sought locally is less certain. Villages of the antecedent (Ubaid) phase had comparable temples, but lacked the potter's wheel and seem to have possessed generally a less evolved craftsmanship, as was indeed natural. On the other hand, it is likely that these villagers, living before rather than after the middle of the fourth millennium, were beginning to exploit the possibilities of irrigation; likely, but quite uncertain.

Did cities begin, then, about 3,500 B.C. (*a*) in Mesopotamia, and (*b*) as overgrown riverside villages? Let us look at other aspects of the problem: in particular, at our knowledge of the beginnings of agriculture, without which city-life were unthinkable.

Many of us were brought up to the simple economic succession: hunting—pastoralism—agriculture—civilization. Lucretius had something of the same idea, and the notion still lingers. The scrounging dog joined the hunters as parasite or colleague, the young of the hunted were rescued and fed; animals became pets, mascots, milk-producers, finally meat-producers. Under appropriate conditions, the search for a more firmly guaranteed and more varied subsistence than that provided by fish and flesh led ultimately to the cultivation of selected grasses which 'for thousands of years the women of those early ages had gathered . . . to be crushed between the stones and made into rude cakes' (Breasted). In consequence, society achieved a new measure of stability, within the limits of soil-productiveness and developing artifice. Cities were in sight.

To-day, with accumulating knowledge, the problem is less easily solved. Agriculture is being pushed steadily backwards in time, without a corresponding retrogression of

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[3] R. Heine-Geldern, 'The Origin of Ancient Civilizations and Toynbee's Theories', in *Diogenes : a quarterly publication of the International Council for Philosophy and Humanistic Studies*, no. 13, University of Chicago Press, Spring, 1956, pp. 81–99. The author concludes that 'the birth of the oldest civilization was a unique fact, due to exceptionally favourable circumstances. Certainly, under the conditions that existed in the Near East in the fourth millennium B.C., the unfolding of civilization was practically inevitable. It was perhaps only due to the advent of new stimuli during the Uruk period, thus to what one could call "an historical accident", that Babylonia was the first to take the decisive step, and not Egypt or Syria. But the fact remains that Babylonia was the first, and that all the other civilizations of the world are in a certain measure, directly or indirectly, derived from it'.

[4] It has been calculated that 'it would have taken 1,500 men working a 10-hour day five years to build one of the temple-terraces at Erech'. Childe, *New Light* . . ., p. 132, following A. Falkenstein.

pastoralism. The physiographical and even the psychological circumstances presupposed by early tillage are under review. 'Agriculture did not originate from a growing or chronic shortage of food. People living in the shadow of famine do not have the means or time to undertake the slow and leisurely experimental steps out of which a better and different food supply is to develop in a somewhat distant future . . . The improvement of plants by selection for better utility to man was accomplished only by a people who lived at a comfortable margin above the level of want. . . . The needy and miserable societies are not inventive, for they lack the leisure for reflection, experimentation, and discussion'.

On this postulate, which I have quoted from Carl O. Sauer[5], the founders of agriculture were already a relatively sedentary folk, with such amenities as fresh-water fishing and a mild climate might most readily provide. One thing at least is probable to the point of certainty: agriculture was not, as has often enough been averred, the 'invention' of a folk dwelling beside one of the great rivers—the Nile, the Tigris, the Euphrates, the Indus. To anyone who has seen a river of this category in ill-controlled annual flood, mercilessly destroying the landscape which it fertilizes[6], the thought of primitive, unengineered and unorganized farming in such an environment is inconceivable. Wherever agriculture in fact first emerged, it was assuredly in some kindlier and more restricted setting.

In March 1956 it was my good fortune to visit Jericho, in the Hashemite Kingdom of Jordan, where for five seasons Dr Kathleen Kenyon has been directing excavations on a considerable scale and with unsurpassed skill. On the day of my arrival, Miss Kenyon took me to see the great trench (frontispiece), where she had just reached native rock beneath seventy feet of débris extending upwards phase by phase to the Middle Bronze Age on the summit. The sight was unforgettable. Beneath our feet the rock had been hacked into the shape of a defensive ditch, twenty-five feet wide and eight feet deep. On the inner edge of this ditch rose a lofty wall of rough, unmortared blocks of stone which had at one time been faced with mud-plaster. Behind it was a large circular tower within which, a week or two later, Miss Kenyon was to discover an astonishing roofed staircase leading down to the former ground-level deep within the town. The sense of permanence, of social discipline, of experience and enterprise immanent in the scene would have been notable in any prehistoric period; and all this was of an early neolithic age.

For above these defences and subsequent to them, to a height of forty-four feet, rose layer after layer of neolithic occupation without a single potsherd. Only, then, above forty-four feet, in a continuing neolithic culture, did pottery first appear. Details must await Miss Kenyon's own reports[7]. Meanwhile, these bare facts are dramatic enough.

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[5] *Agricultural Origins and Dispersals*, American Geographical Soc., New York, 1952, pp. 20 ff.

[6] I have in mind a vivid flight over the drowned valley of the Brahmaputra during the monsoon: and the considerable sums spent annually to preserve the remains of Mohenjo-daro from the Indus flood. Yet both these valleys are to-day heavily engineered.

[7] Such details as are cited here were described by Miss Kenyon in a lecture to the Palestine Exploration Fund, the British School of Archaeology at Jerusalem, and the British Academy on the 27 June 1956. On the same occasion Professor F. E. Zeuner was to have announced the preliminary radio-carbon results but was unfortunately prevented by illness. It is to be hoped that precise and verified results may be available in the near future. Nothing in archaeological radio-carbon analysis is more important than this.

Within that forty-four feet, the town-wall—for such it unquestionably was—had been rebuilt at successive levels on at least three occasions. The extent of the neolithic town thus enclosed is at present unknown. To-day the mound of Jericho occupies eight acres, and in the Middle Bronze Age, about 1800 B.C., the fortifications certainly included the adjacent spring. It is likely enough that their neolithic predecessors, long before, did likewise: at least they dominated it.

This astonishing spring is of course the *raison d'être* of the whole complex. It is said to produce a thousand gallons of water a minute. At the present time it supports not only the permanent townlet of Jericho but, in addition, an adventitious horde of 70,000 Arab refugees from Israel. With the aid of a little elementary engineering it has carved a lush oasis, two miles across, out of the desert. For a very great distance, save for the muddy rivulet of Jordan, it is the only usable water. It symbolizes life in that sullen valley.

The early neolithic townsfolk of Jericho were herdsmen; it is no less certain that they practised agriculture. No actual grain has yet been recorded from the lowest levels, but mortars and grinding-stones have been found in them, and the economic stability implied by the rock-cut fortification is itself a sufficient general index. These ancient citizens, who had not yet acquired the potter's art, were manifestly proficient farmers, with the abundant aid of their perennial fountain.

When did they flourish? Hitherto the earliest agricultural community to which something like an objective date can be attached has been Dr Robert Braidwood's famous three-acre village of Jarmo, in the foothills of northern Irak, east of the Tigris. Repeated radio-carbon tests, carried out on snail-shells and charcoal, there indicated 4700 B.C. as a central date for the foundation of the settlement. There too the earlier villagers were devoid of pottery, and fifteen vertical feet of deposit accumulated before pottery reached the site. At Jericho the non-pottery neolithic was three times as deep; but, beyond the probability that this greater depth implied an appreciably greater initial antiquity, guesswork could not go.

Now Professor F. E. Zeuner is understood to have secured some radio-carbon dates for Jericho, and will no doubt follow them up in due course with others. As he affirms, these results are tentative; moreover, they relate, not to the lowest and oldest level of Jericho, but to certain of the higher levels within the range of the non-pottery neolithic. They are bracketed roughly between 8000 and 6000 B.C.; in other words, the *later* bracket is over a thousand years earlier than Jarmo. This is at least consistent with the huge depth of the non-pottery neolithic accumulation, and provisionally I am prepared to believe that the original fortified Jericho is $x$ centuries earlier than 6000 B.C.

The sum-total of all this evidence may now be stated. In the congenial conditions of an oasis watered by a powerful spring, a farming community established itself not later than the seventh millennium, and took root. From the outset it fortified its settlement with an elaboration that implied a tolerably developed social organization and a determination to abide. From the outset the settlement had all the aspect of a town, and may fairly be so described; within a seemingly close-packed eight acres, it was probably as populous as many non-westernized oriental towns of modern times. If we accept that title, it is the earliest town known in the world by two or three millennia. *And our oldest town was a fortified oasis.*

Some twenty years ago, Professor Gordon Childe postulated an oasis-origin for the domestication of animals. 'As suitable animals became increasingly hemmed in to the

oases by the desert, men might study their habits and, instead of killing them off-hand, might tame them and make them dependent'[8]. What may thus be called the Oasis Theory of Domestication may at any rate represent one of several parallel or contributory processes, though I am not sure how much emphasis its author would attach to it to-day. Similarly, I have no wish to overstress my Oasis Theory of Civilization, but I offer it in turn as a speculative contribution to a difficult but important problem upon which finality is assuredly impossible. Certainly an oasis, and particularly an oasis in the western fringe of Asia where the Emmer wheat is native[9], provides just those environmental conditions which have been postulated for the beginnings of agriculture. And, granted the oasis with its desirable spring, its possession would certainly have to be secured, sooner or later, by its dominant exploiters in a fashion approximating to that of our earliest Jerichoans. For the wider secondary development of the arts of agriculture and urbanization, the great river valleys such as that of the Euphrates offered a more commensurate scope, and it doubtless remains true that in these valleys civilization ultimately reached its first optimum. But towns were already, it seems, an ancient device before Uruk and Ur attained that status. We should perhaps begin now to look back beyond them to oases such as that of Jericho for the primary or near-primary convergence of domestication, agriculture and civilization, alike in space and in time. The first herds? The first crops? The first towns? We shall see more clearly when Miss Kenyon has served another term of five years' hard labour in the Jordan valley.

[8] *What Happened in History*, Pelican Books, 1942, ch. III; *Man Makes Himself*, London, 1936, p. 87.

[9] To Palestine has often enough been accorded a prior claim to the cultivation of wheat. See, e.g., *Man*, 1938, 36, and 1939, 53. Without over-insistence, it may be affirmed that the botanical evidence is consistent with the early cultivation of Emmer there or in Syria and the adjacent lowlands. I wish we knew a little more about the Natufians of Mount Carmel, with their composite sickles.

# Stonehenge: a review*

by R. S. Newall

An up-to-date book on Stonehenge by Mr Atkinson is indeed a great acquisition; it is a book for the intelligent reader as well as for the archaeologist, and is by far the best book on the subject that has so far been written.

The author explains how a potsherd or stone, when carelessly thrown away, will gradually sink owing to the action of earth worms, through the earthy top-soil till it reaches an impermeable layer, so that where, as here, the soil is shallow a layer is formed containing objects of all periods. Such a statement made in the 1920's was laughed at. Further, he goes on to say (p. 168): 'The one thing about Stonehenge upon which everyone is agreed is that it is primarily a "temple," a structure in which it was possible for man to establish contact and communication with extra-mundane forces or beings'. No one in the nineteen-twenties could have made such a statement and survived. Abercromby said it in his book (*Bronze Age Pottery*, 1912), and his chapter on Stonehenge is still well worth reading, but it is never quoted or referred to. It was Abercromby, not the present reviewer, who first pointed out the importance of the south-western end of the axis. The only obvious error noticed (p. 195) is the statement that Colonel Hawley was Director of the Society of Antiquaries. However, this slight error is amply made up for by the forty photographs, all but six of which reveal some feature never before published and probably not even photographed; one of them (plate II: Stonehenge from the north[1]) has an artistic quality that no other photograph I can recall has ever had. The effect of light and shade is most beautiful.

Mr Atkinson describes the excavations of the last few years, carried out in co-operation with Professor Piggott and Dr J. F. S. Stone with great care. No one of course will question statements of facts about the excavations; but some of the inferences drawn from them are open to discussion, and no one will welcome such discussion more than the author of the book, for it is through that that the story of Stonehenge unfolds. This remark applies particularly to Chapter 3 ('The Sequence of Construction'), a very difficult chapter to write and well done. Early in the book the author says that an archaeologist's eyes are too often buried ostrich-like in the ground; I feel that in order to understand Stonehenge one's eyes must be not only below ground but also above it and directed to the heavens; of this more anon.

Bearing this in mind, let us consider the first period of construction to which he assigns the Heel Stone, the bank and ditch and the post-holes on the original narrow causeway. But he does not mention the fact that these post-holes are radially arranged with six or more holes in line, and that they are also placed in arcs which are concentric with the centre, stone-holes D and E, the timber structure at A and the Aubrey-hole cremations. To his second period he assigns the double circle of blue stones, the widened causeway, the Heel Stone ditch, the Avenue, the dismantling of stones D and E

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* *Stonehenge*, by R. J. C. Atkinson, Hamish Hamilton, London, 16*s*. The Editor wishes to thank the publishers for the loan of the block from which the plan facing p. 140 has been printed.

[1] Nearly north-east would have been more correct.

and the erection of stones B and C. He says (p. 15) that the Heel Stone ditch must be more or less contemporary with the erection of the Heel Stone, or later (p. 60). This ditch belongs to Period II, therefore the Heel Stone belongs to Period II or I. If it belongs to Period II it would be contemporary with the Avenue and would then have been placed centrally on it, which it was not; therefore it is earlier than the Avenue and belongs to Period I; and this, he says, is confirmed by the Beaker sherds found in the earth filling between the outer face of the Heel Stone and the edge of the stone-hole. The outer face of this stone is now about 20° out from the perpendicular; it is not known when it began to lean. A Beaker burial could perhaps have been placed against the stone at any time in that period, but the accidental fall of some of its pieces down to a deeper level in slipping soil cannot be used as evidence of a period of construction. The reason given on p. 66 for putting the Heel Stone ditch in Period II is that a flake of rhyolite was found on the bottom of the ditch, which evidently means that the ditch is contemporary with the introduction of rhyolite into the monument, or very little later than that. No known rhyolites were present in Period I. One feels that the ditch must belong to the same period as the stone. Beaker sherds or rhyolite chips were in the refilled stone-holes of the double circle. Further, the asymmetrical position of the Heel Stone in relation to the axis of Period I is against it being of that period.

None of the finds, and none of the inferences drawn from them would be against the theory that in Period I Stonehenge was a wooden henge with some central wooden structure whose post-holes might be discoverable. The post-holes on the narrow causeway, the four A holes and the D and E holes all on one alignment (though these are more doubtful), are most suggestive, whereas the Heel Stone is some 5° to the east of this line. If, on the other hand, any part of the central area could be found still intact and unviolated by treasure hunters, there is just a possibility that excavation might reveal stone-holes which were the original holes of the dressed and spotted dolerites of the Horse-shoe and the two lintels of the Blue Stone circle. This would belong to Period I and would be a very suitable setting indeed for these stones. The author says (p. 73) it is possible that stone-holes J and L may even be two of the holes for these stones, but that the holes belong to Period III b; why III? (The eight photographs showing details of these stones are most excellent). Their present position can now be explained only by recourse to that very unsatisfactory phrase, ' change of plan '. One wonders whether all the blue stones were imported at one period. In the 19th century there was a theory that a blue stone monument, not just rough boulders, had been brought from somewhere. We do not know whether there was one importation or several. If it was a monument of dressed stones that was imported, that might mean that the Stonehenge layer of blue stones is composed rather of destruction fragments than of dressing chips. The discovery of blue stones in Boles Barrow (a long barrow) suggests that there was more than one importation. On p. 104 only one such stone is mentioned, but Cunnington says in a letter that he found more than one. It is possible that the Blue Stone circle is due to a second importation in Period II.

It was during Period III a, that all the sarsens (except the Heel Stone) were transported and erected, and the carvings made. In order that this might be done the double circle was removed and the stone holes were rammed tight; in these holes were found a few Beaker sherds. Next came the erection of the five trilithons (p. 68). ' The building of the outer circle came next, followed by the erection of the four station stones and the Slaughter Stone and its companion '. Here, as I said before, the archaeologist must raise his eye—or at any rate his mind—to the sky. As stated in the guide-book, stones 91 and 93 of the four stations are very carefully placed with relation to the sunrise and

the sunset at four dates in the year, namely, 45 days between the Solstices and the Equinoxes. But as there seems nothing to indicate the Equinoxes, these two stones may be regarded as dividing the year into four equal periods; with the two missing stones 92 and 94 they again duplicate the Solstitial alignment of the later sarsen monument and that of the earlier double Blue Stone circle. If these stones were intended for this use they must be earlier than the sarsen monument, because they cannot be seen either from its centre or from each other; therefore they must be either the earliest feature in Period III a or earlier than it. The author admits (p. 69) that they may belong to Period II, and that the ditches round the two barrows closely resemble the ditch round the Heel Stone, though not so deep. One cannot help feeling that these stones and their ditches, together with the Heel Stone and its ditch, all belong to Period II or the very beginning of Period III a; but since their dressing is either slight or absent one favours Period II. The author suggests (p. 18) that 'they formed symbolic memorials of an operation of field geometry' to find the centre of the circle. That their diagonals cross at the centre tells in favour of both this and the other theory, and a combination of the two is probably the correct solution. Nor does the author disregard the solar aspect of Stonehenge (p. 172). 'In Stonehenge II there is indeed specific evidence that the sun played some part, and perhaps the central one, in the beliefs of the builders'. It is curious to think that thirty years ago most members of the general public would have believed this and said so, though few archaeologists would have dared to.

Let us now go back to the Heel Stone and its ditch, remembering that the author says that the Heel Stone belongs to Period I and its ditch to Period II, and look at the Avenue. The plan shows that the distance between this stone and the Avenue bank is about 25 feet. Is it possible that just over 80 huge sarsens could be brought in Period III a through this gap without damaging either the stone or the bank? Stones B and C must necessarily belong to the end of Period II or be even later; but since they are centrally placed on the Avenue and on the axial line of the sarsen monument, they must belong to III a or be later, and it is reasonable to place the Avenue late in III a, for it is governed by the width of the wider causeway of Period II, with its bank overlying the Heel Stone ditch (assigned to the end of II or early in III a). Against this reconstruction is the absence of blue stone dressing chips in the silt and the presence of destruction fragments above the silt in the Avenue ditches. Apart from this it would be more reasonable to assign the Avenue and stones B and C to Period III than to II.

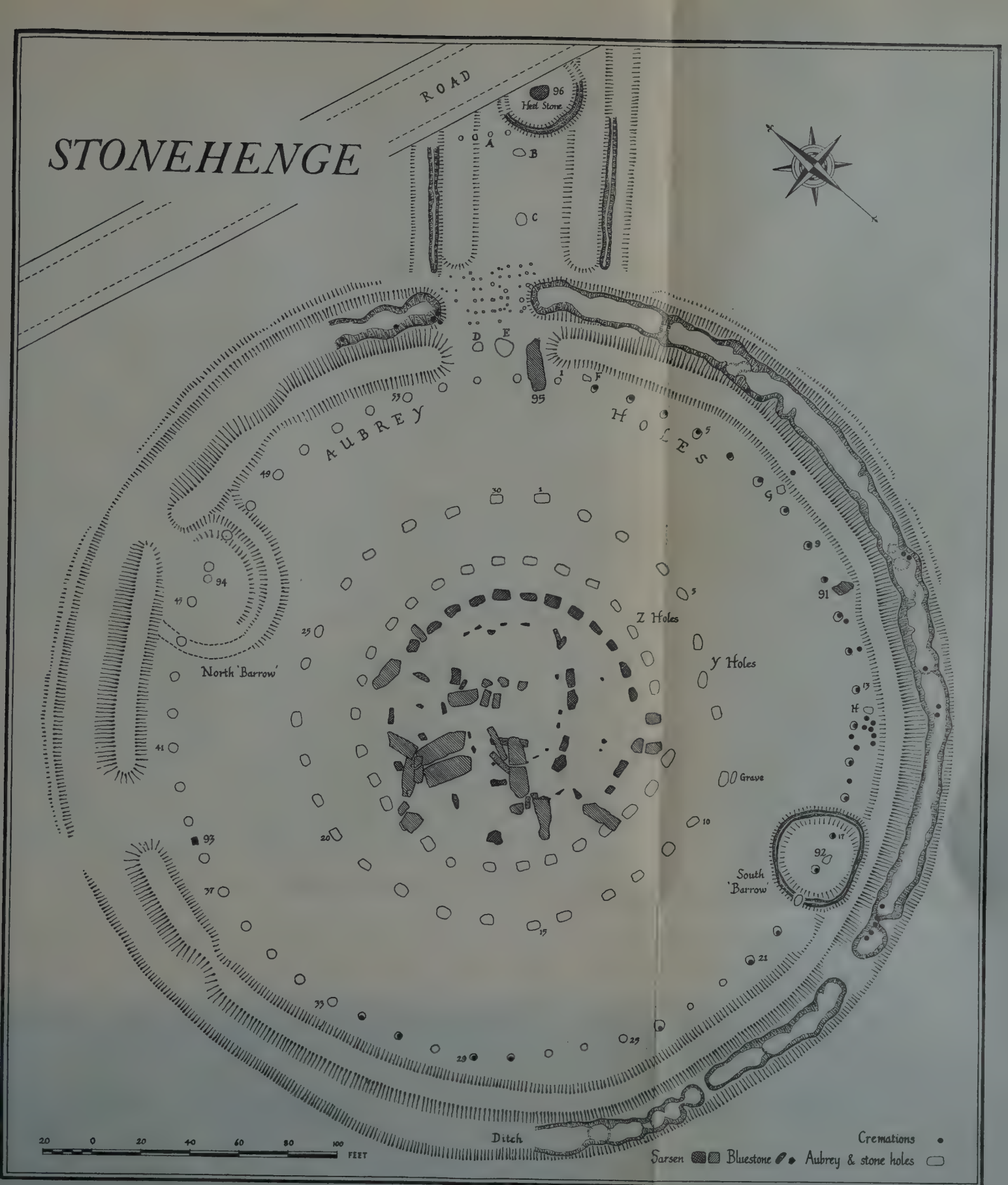
The holes D and E are said to have held stones in Period I. Their position suggests that they belong to this period. Hole D did not look like a post-hole, but from the plan only one might favour posts here. Was it a stone-hole? One cannot rely upon one's memory to decide that. E is stated to have been re-used in III a, 'but of this stone nothing remains'. It is true that nothing remains above ground, but there is still a large sarsen flake standing upright on the bottom of the hole, and above it on the side of the hole is the impression of the stone; obviously two Slaughter Stones once stood here, probably not later than the end of Period II, contemporary with the four stations and the Heel Stone. They must have been removed before III a, to allow for the bringing in of the sarsens. If they were erected after the sarsen monument, then they must have been removed soon after, because the Slaughter Stone, if standing, would have hidden the Heel Stone from the centre. The author also thinks that the Y and Z holes belong to this Period III b. It is entirely due to his careful excavations that these holes are now better understood; but it is doubtful whether these 59 (doubtless originally 60) holes were ever intended to hold blue stones, as the author suggests, pointing to the correspondence in numbers—82 in the double blue stone circle corres p . . . o 60 in

the Y and Z holes plus 19 in the Horseshoe plus 2 blue stone lintels and the Altar Stone. 'This correspondence cannot be dismissed as a chance coincidence; and it may accordingly be accepted (as a working hypothesis which covers the observed facts in the simplest way) that the dressed blue stones and the Y and Z holes are associated with each other and form part of the same phase of construction' (p. 72). This reminds one of Sir Flinders Petrie's theory of the Blue Stone Circle: he wrote that its stones are arranged in pairs, in which one stone is diametrically opposite the other. 'The probability of 11 out of 18 stones being by chance opposite to each other in a set of 44 places is about 5000 to 1'. If 44 paired with 34 it would increase the improbability of chance to 30,000 to 1. Thus it appears that the betting against there having ever been any more than there are now is very strong, because it is most unlikely that only stones opposite each other would have been removed. The excavations of 1954 show that many stones *were* removed or broken off above ground level.

Mr Atkinson is probably more pleased at finding the incised dagger and axes than at anything else. The axes can definitely be identified as belonging to the Middle Bronze Age, and the largest is nearly the same size as the largest known Irish bronze axe. The tapering butt of the two axes on Stone 4 may represent an unrecognized type or more probably be an error in marking out; compare the axes on plate XII a, with those on plate XII b. As for the dagger, it is doubtful, owing to the weathering of the surface, whether it can really be regarded as a Mycenaean dagger. The same may be said of the symbol on Stone 57; it cannot be regarded as certain that it represents the Mother Goddess. But to return to the dagger; seen in a certain light it gives one the impression that it began as an axe, and that the handle and about one third of the blade—the pointed end—were added later. There seems as yet to be no proof that these symbols are contemporary with the erection of the stones. Nor does there seem to be any significance in the stones selected for the symbols, except perhaps that all are made on the softer sarsens. The author says (p. 136) that it is impossible to use flint chisels on sarsen. Very many flint mauls were found during the earlier excavations, used no d ubt on the softer sarsens. The general reader will be most interested in Chapter 4 ('The Technique of Construction') which gives the man-power required for transport and erection; but only an engineer could discuss this chapter. When one remembers that far larger stones have been moved by man-power alone, it is rather the skill shown in the placing of the stones in their exact positions than the transport of them that amazes one.

Mr Atkinson says that the earlier excavations of 1920–26 were not carried out as they should have been. As one who took a large part in them I freely admit this[2]; but Colonel Hawley very often complained of the lack of interest shown. No advice was ever offered, and when he read his annual report his careful work was praised. One can never imagine that thirty years hence Mr Atkinson's work will be so criticized. It is a pity that more archaeologists were not able to see it. Let me conclude by again recommending very strongly this most enlightening book.

[2] As one who remembers those excavations and visited them I must agree; but I would point out (what many of us knew at the time) that it was entirely due to Mr Newall's share in them that they were not worse. His observations and sectional drawings recorded much that would otherwise have been lost; and his timely removal of the objects found from the wooden hut, where—incredible as it may seem—they were just left to look after themselves, to a place of temporary safety should now be put on record. For further details and confirmation of these remarks see *A History of the Society of Antiquaries*, by Joan Evans, p. 398. O.G.S.C.


STONEHENGE
ROAD
96
Heel Stone
A
B
C
D
E
F
95
AUBREY
HOLES
Z Holes
Y Holes
North 'Barrow'
94
93
92
91
South 'Barrow'
Grave
Ditch
20 0 20 40 60 80 100
FEET
Cremations
Sarsen
Bluestone
Aubrey & stone holes

*facing p. 140*

After reading the above review, Mr Atkinson sends us the following comments:

Since Mr Newall's review was written before the Stonehenge excavations of 1956, he has most generously suggested that I should comment upon it in the light of the latest work. In doing so I am delighted to have a further opportunity of acknowledging the debt which I and my colleagues owe him as the recorder and interpreter of the earlier excavations.

In criticizing my suggested sequence of construction Mr Newell has dwelt particularly on the features for which the evidence of relative date is least satisfactory, namely the Heel Stone and its ditch (assigned by me to Periods I and II respectively) and the dressed bluestones and Y and Z holes (constituting my Period III b).

The recent excavations have shown that the Heel Stone's ditch is later than an ancient disturbance extending to the W. of the stone, which according to Col. Hawley was later than the innermost post-hole of the wooden structure at A, itself apparently of Period I and certainly earlier than the bank of the Avenue of Period II. The Beaker sherds (not part of a burial) found against the S.E. side of the stone in 1953 are admittedly not mandatory evidence for an earlier date for the Stone, though they were not in the area disturbed by its subsequent movement. But in any case the Heel Stone and its ditch *must* be earlier than the Avenue; and the latter, from the evidence of the widening of the entrance which it matches (pp. 63–5) *must* be earlier than the period of the sarsen mauls (III a). Mr Newall's argument that the Heel Stone, not being on the axis of Period I, must be later than that period, applies with the same force to all the subsequent periods. Nor is it *necessary* to assign stone-holes B and C to Period III a, or later, on the ground that they lie on the sarsen axis; for this is the same as the axis of Period II.

The objection that these stones, or the Heel Stone, would obstruct the passage of the sarsens up the Avenue is one which I have anticipated (pp. 116–17). The recent work suggests that the gap in the earthwork close to stone 93 was made deliberately in ancient times and may well provide the answer to this problem.

Of the existence at Stonehenge of the dressed bluestone structure (III b) we now have evidence in the form of five stone-holes not otherwise accounted for. Of these, two are the holes J and L and two others lie between them, athwart the inner ends of the extended entrance stone-holes of Period II. They were excavated, but not recognized, by Col. Hawley and the evidence of their relationship was unfortunately destroyed beyond recovery. The fifth hole lies between stones 59 a and 70, and had been dug into the filling of a still earlier hole (apparently of Period II) sealed by filling characteristic of Period III a, and had itself been re-used in Period III c for a stone of the present horseshoe (70 a) whose stump was found *in situ*.

We now know also that the double bluestone circle of Period II was never finished, since we have found a gap of unknown extent on its W. side; and this raises the possibility mentioned by Mr Newall, of two separate importations of these stones. (Incidentally, it should be made clear that the important letter from Cunnington, to which Mr Newall refers, is an unpublished one of which I was previously unaware. It happily clears up the ambiguity of the published letter (*W.A.M.*, XLII (1924), 432) about the number of bluestones found in Boles Barrow). None the less, it is clear that *as planned* Stonehenge II consisted of upwards of 80 stones; and the known plan of the present bluestone setting (III c) shows that little short of 80 stones were still present in the last phase. Since the dressed bluestones must have numbered at least 22, there remains a residue of about 60 to be accounted for in Period III b. If the Y and Z holes were not intended for them, what were they for? Structural phases, like other entities, must not be multiplied *praeter necessitatem*.

R. J. C. ATKINSON.

# Upland Houses

## The Influence of Mountain Terrain on British Folk Building

by James Walton

THE difficulty of building in mountainous country has resulted in similar solutions over a very wide area, and certain houses and farm buildings in western Britain have many features in common with those in Scandinavia, the Vosges, the Black Forest, Switzerland, Spain, Macedonia and even in the Himalayas. The most obvious method of building in hilly terrain is to create a level platform either entirely by excavation or by excavating the upper portion and using the earth removed to build up the lower part of the platform. A single-storeyed building on such a levelled site may then be identical with any lowland type.

Primitive 'platform' sites dating from the Dark Ages have been recorded from several parts of Wales, notably those excavated by Aileen Fox on Gelligaer Common, Glamorgan[1]. These homesteads, each consisting of from one to three buildings erected on platforms levelled into the hillside, were sited on a little shelf at the junction of the moorland plateau and the valley scarp at an elevation of about 1,300 feet. Each house was divided into two parts by an almost central cross-passage and the ridge-pole was supported by two or more upright posts. Dark Age and medieval houses of the platform type are known from twenty-six sites in Glamorgan, three in Radnorshire and two near Llanbadarn Fynydd, whilst many smaller homesteads of a similar character have been discovered in Caernarvonshire by Hemp and Gresham[2].

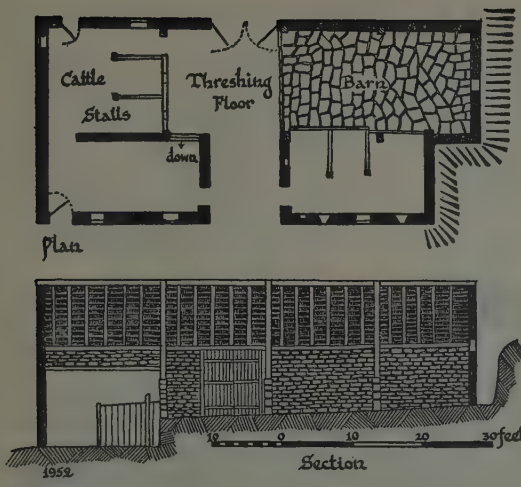
The method of building a house with a central cross-passage on a platform excavated out of the hillside at right-angles to the contours may be dated with certainty from at least the late thirteenth century and probably much earlier but it has continued almost to the present day. In 1946, during a short period of military duty at Harlech, I spent some time in examining the tyddyns around Llanfair; and at Tyddyn-y-felin I came across a cottage (then serving as an outbuilding) which was very like the earlier buildings in Glamorgan. It was a rectangular stone structure, 38 feet by 19 feet, built on a platform excavated at right-angles to the hill slope. The upper end was almost completely occupied by a wide open hearth, with a later rounded baking oven on one side; a cross-passage entrance divided the building into two parts, the upper being almost twice as long as the lower (fig. 1, c).

In hilly country the usual practice was to build the house at right angles to the contours, probably to avoid excessive hillwash, but this was not invariable and on the upper road from Llandebr station to the village I noted a tiny cottage, nestling on a platform deeply excavated out of the hillside parallel to the contours. The dwelling part was a single room, 25 feet 6 inches by 20 feet, entered by a doorway in the middle of the lower wall. The entire length of the rear wall was occupied by a raised platform, *tyle*, 2 feet wide and 1 foot 9 inches high, which probably served as a bed[3]. At one end

[1] Aileen Fox: 'Early Welsh Homesteads on Gelligaer Common', *Arch. Camb.*, 1938, pp. 163–99.

[2] Cyril and Aileen Fox: 'Forts and Farms on Margam Mountain, Glamorgan', Antiquity, 1934, pp. 395–413. Aileen Fox: op. cit., pp. 179–80. Aileen Fox: 'Early Christian Period: Settlement Sites and other Remains', *A Hundred Years of Welsh Archaeology*, 1946, pp. 119–20.

[3] For a discussion of *tyle* see: Iorwerth C. Peate: *The Welsh House*. 1944, pp. 82–3.

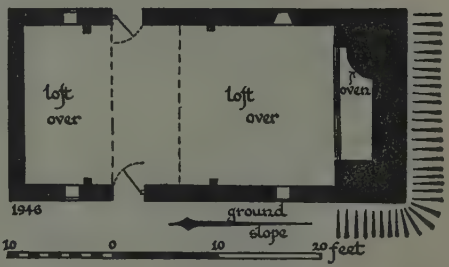



a. Greenhill Bank Barn, New Mill, W. Yorkshire

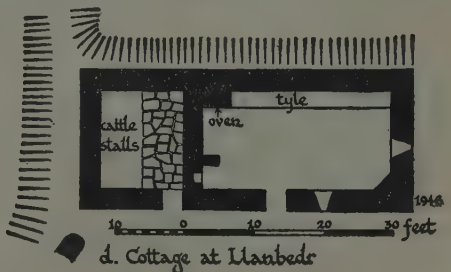
e. Diagrammatic section of a Westmorland ramp-entrance barn.

# FOLK BUILDING IN MOUNTAIN TERRAIN IN BRITAIN

b. Tyddyn-y-felin, Llanfair, Merioneth.




c. Cottage at Tyddyn-y-felin




d. Cottage at Llanbedr

FIG. 1

of the house was a small cattle shed, entered by a separate doorway, and the homestead was reached by a deeply sunken pathway (FIG. 1, D).

Where the hillside was particularly steep the difficulty of excavating a level platform was reduced by cutting out the platform in two steps. Many barns and cottages in the Pennines, Westmorland and Wales are of this type, a typical example being Greenhill Bank Farm at New Mill in West Yorkshire (FIG. 1, A). This is a cruck-framed structure of four bays, one of which is some two feet below the others. The lower bay, reached by steps from the main floor, houses the cattle which enter by a separate doorway, and above their heads a boarded floor carries the hay ' moo '. The two topmost bays serve as a barn and almost the whole of the remaining bay is utilized as a wide entrance passage and threshing floor, sited between two opposite pairs of large harr-hung doors[4].

In still steeper terrain where the floors were excavated in two levels the difference in height between the two was increased and the upper floor was usually extended to cover the lower without any break. A primitive example of this type of construction was recorded at Tyddyn-y-felin in a small combined hay-store and cow-shed (FIG. 1, B). The lower part, entered by a low doorway in the gable wall, housed the cattle. The upper floor, entered by a doorway in the opposite gable end, was extended to completely cover the cattle and here the hay was stored.

Primitive Norwegian firehouses and cow-sheds of identical pattern have been described in detail by Halvor Vreim[5] and similar field-sheds are common in Switzerland where the lower part serves as a dairy and the upper floor is a hay store (PLATE I, A). From such humble beginnings developed the typical homesteads of the Black Forest with the cattle stalls and store rooms underneath the balconied living quarters. In Britain more developed examples of this construction are rare but there is at least one excellent survival at Town Foot, Troutbeck, in Westmorland (PLATE I, B).

In the southern part of Westmorland a type of hill farm building arose which does not appear to have any counterpart elsewhere in Britain. These buildings are set on levelled platforms parallel to the contours and consist of ground floor cattle stalls with a barn above. As both floors are entered from the upper side a stone ramp is provided to afford access to the barn (FIG. 1, E). The finest surviving example is the barn at Town End, Troutbeck, which was built in 1666 (PLATE II, A). This has projecting wings, which were formerly the quarters of the farm labourers, and they are fitted with small oak-mullioned windows. Access to the upper floors of the wings is gained by galleries protected by a pent-house roof. A very similar barn existed at Pool Bank on the slopes of Whitbarrow Scar (PLATE II, B) but this has now been considerably altered, and a third example was still standing in 1952 at Grigg Hall, near Underbarrow. It is very probable that many more have still survived as it was a widespread type in Westmorland. Ramp-entrance barns are fairly widely distributed on the Continent. I have noted examples from northern Alsace and the Black Forest and Gustav Bancalari has illustrated many such barns from the eastern Alps[6].

The method of excavating a platform site at two different levels ultimately resulted in several features characteristic of mountain terrain. The ground floor, being unsuitable for human habitation, was invariably employed to house the cattle with the living

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[4] James Walton: *Early Timbered Buildings of the Huddersfield District*, 1955, pp. 24–7.

[5] Halvor Vreim: ' Houses with gables looking on the valley ', *Folk-Liv.*, 1938, pp. 295–315.

[6] Gustav Bancalari: ' Die Hausforschung und ihre bisherigen Ergebnisse in den Ostalpen ', *Zeitschrift des Deutschen und Oesterreichischen Alpenvereins*, XXIV, 1893, pp. 128–74.

floor or barn above, a system which offered many advantages. In winter the cattle were warmer than in a ground-level shed, they could easily be reached by the farmer in inclement weather and they could be more readily protected against cattle raiders. These advantages do not appear to have determined the form of the buildings ; they represent rather the adaptation of a building pattern which arose from the nature of the terrain itself. The practice of housing the cattle below the living quarters and thereby utilizing the floor excavated out of the hillside is general wherever double-storeyed buildings are erected in mountainous country. It represents a parallel development to the single-storeyed ' long house ' where the cattle were housed under a continuation of the same roof as the dwelling, thus securing the same advantages.

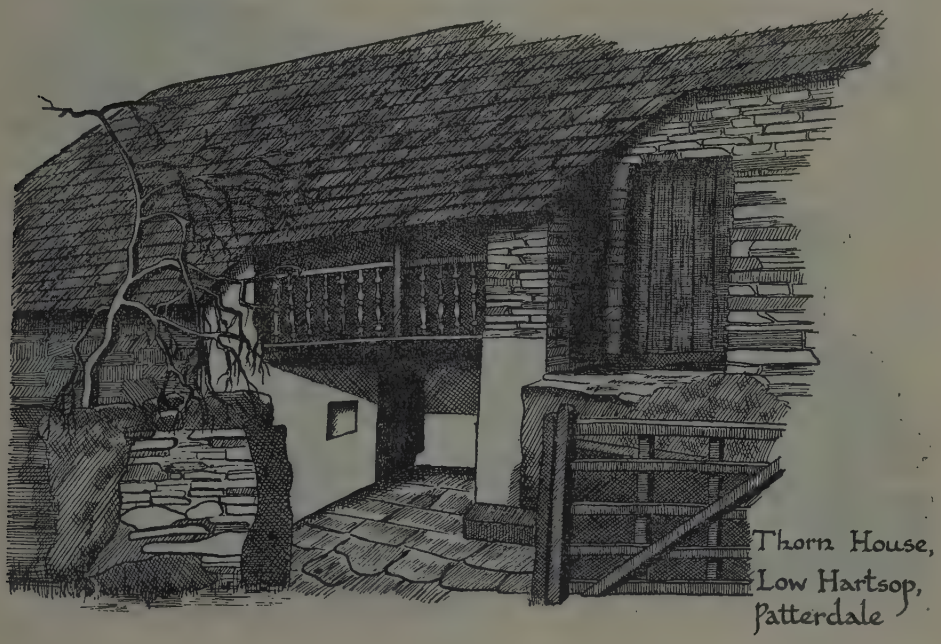


FIG. 2

When the upper floor was occupied as a dwelling a railed landing or gallery became a necessity and this is also a universal feature of buildings in mountainous districts. These have survived in Britain, particularly in Westmorland where those on the houses are popularly known as ' spinning galleries '. The following is a list of ' spinning galleries ' which I have recorded :—

1. Bomby Waters, Bampton, near Shap. 17th cent. gallery on N. side.
2. Mireside, Low Hartsop, Patterdale. 17th cent. gallery on N. side.
3. Low House, Low Hartsop, Patterdale. 17th cent. gallery on N. side, approached by external staircase. Only traces remain.
4. Thorn House, Low Hartsop, Patterdale (FIG. 2). 17th cent. gallery with turned balusters on N. side. Approached by external staircase.

5. Simpson House, Low Hartsop, Patterdale. 17th cent. gallery at N. end. Now removed.
6. Longmire, Windermere. 17th cent. gallery with turned balusters on N. side.
7. Chapel Hill, Mardale. Gallery at N. end of cottage.
8. Low Fold, Troutbeck. Gallery on E. side of outbuilding. 17th cent. Approached by external stone staircase (FIG. 3).
9. Hodge Hill Hall, Cartmell Fell. Gallery with turned balusters over entrance on E. side. 17th cent.
10. Pool Bank, Witherslack. Gallery on brackets over E. doorway. 17th cent.

FIG. 3

11. House at Lowick. Approached by external staircase.
12. Adamthwaite, Ravenstonedale. Approached by external staircase.
13. Tower House, Brownber, Newbiggin-on-Lune.
14. Black Swan Inn, Ravenstonedale.

In an earlier discussion of these ' spinning galleries ' I suggested that their function was probably to protect the entrance[7]. Although they do serve such a purpose, the fact that most of them are reached by an external staircase indicates that they were primarily intended as a means of access to the upper floor and the railings were provided as a safeguard against accidents. At Hodge Hill Hall and Pool Bank, however, the galleries

[7] James Walton : ' Lake District Homesteads ', *Country Life*, 1952, pp. 1319–22.

can only be reached from the upper floor and in these cases they appear to represent a later evolutionary phase in which their original purpose was lost. Apart from protecting the entrance these two galleries were merely places where the housewife could sit in the open air, possibly to spin, or where yarn could be hung to dry. They were ' spinning galleries ' in the true sense of the word. The other galleries, whilst they may have been utilized for spinning during the spinning boom of the 17th century, represent an older tradition.

Covered galleries on farm buildings, such as those on Town End Barn, Troutbeck, were, according to H. S. Cowper, formerly much more common. ' Frequently ', he writes ' (and within memory of man even more frequently) are, or were, to be seen picturesque galleries on these outbuildings (byres and shippons), the roof being carried out further than the wall, and then supported by and sheltering a passage-way of strong wooden framework. Or we find a penthouse projecting simply from the wall at a lower level. It has been thought that in these we may possibly trace a survival of Icelandic custom—a reminiscence of the outside stairs and galleries which are known to have been built by the Vikings. Such, of course, is possible but we think no other explanation is necessary than the wetness of the climate, and the smallness of the within-doors accommodation that the people provided themselves with. Under these galleries and penthouses were stored, we imagine, produce and effects which should be kept from rain. Peat fuel was seasoned here ; and, above all, here was hung up to dry the yarn, spun with distaff and wheel, by the busy fingers of the daleswoman '[8].

Prehistoric examples of the house-types discussed are unknown in Britain, so far as I am aware, but in recent years a number have been discovered in Europe. Notable among these is the late Bronze Age settlement at Kestenberg, Canton Aargau, in Switzerland, which has been very carefully excavated by Dr Laur-Belart[9]. These excavations, carried out between 1951 and 1953, revealed a hamlet of five buildings which had been gutted by fire, overlying two earlier structures, and in turn partly covered by two, or maybe more later buildings. The ashes and charred timbers, together with certain rough foundations, enabled the excavators to reconstruct with a fair amount of accuracy the details of the five structures belonging to the middle period, Hallstatt A–B.

All the buildings were at right-angles to the contours and were separated from each other by narrow passages which, according to Laur-Belart, were intended to carry away water from the roofs and the run-off from the hillside above. He suggests that the reason underlying the method of building at right-angles to the contours has always been to present the minimum wall-length to hillside drainage and so reduce seepage into the dwelling.

Houses 1 and 2 were about 3.5 m. in width and both had projecting roofs at one end ; that in house 1 covering a baking-oven and having a wattle-and-daub surrounding wall. Houses 3 and 5 appear to have been the most important dwellings. House 3 is of particular interest to the present discussion as it had been excavated out of the hillside at the north end and a ramp one metre wide, had been left to provide access to the upper floor, a feature also recorded by Bersu at the Wittnauerhorn. This indicates that the ramp-entrance, which is still very prevalent in Black Forest houses and occurs in a modified form in our Westmorland barns, is of considerable antiquity.

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[8] H. S. Cowper : *Hawkshead—The Northernmost Parish of Lancashire*, 1899, p. 157.

[9] R. Laur-Belart, : ' Kestenberg III, 1953 ', *Ur-Schweiz*, XIX, 1955, pp. 1–28. [I am very much indebted to the Editor for drawing my attention to this interesting excavation report.]

From house 5 fragments of beams, 15 cm. thick, were recovered and these extended beyond the wall to give a projecting roof-cover such as is commonly found in mountainous areas to-day. This house had a large central clay-lined hearth and a baking-oven in one corner. Between houses 3 and 5 was a smaller building, 2.25 m. by 2.5 m., which contained a thick layer of charred grain and probably served as a granary.

Evidence of a sixth house which had not been devastated by fire was also found. Little indication of walls was apparent at the lower end and this led Laur-Belart to suggest that the lower portion of the building was carried on upright posts. As a modern parallel for this construction, which is still widespread in the Alps, he refers to a field-shed from Calfreisen.

The Kestenberg settlement consisted, then, of a group of five or six buildings constructed from rounded logs with projecting beam ends, a type represented by the Swiss field-shed of to-day (PLATE I) and by its counterpart in stone at Tyddyn-y-felin. Wattle-and-daub was used only for the baking-house. The buildings were erected at right-angles to the contours and they were separated from each other by narrow drainage passages. A ramp was also provided in one instance. Laur-Belart concludes that ' the hamlet on the Kestenberg cannot have looked much different from the larger village of Pinsec, in Wallis ' (PLATE III). Many of the features characteristic of buildings in mountain terrain have therefore a long ancestry, dating back to between 1000 and 800 B.C.

NOTE.—PLATE III is from a photograph by Theo. Frey of Weiningen (Zch.) and is reproduced here by kind permission of Professor Laur-Belart, editor of *Ur Schweiz*, and director of the Kestenberg excavations.—EDITOR.

# Elf-shot Cattle

by Thomas Davidson

THIS paper outlines the beliefs associated with Elf-shot and the influence these had on the treatment of cattle disease and the pattern of field ploughing. The subject may conveniently be introduced and partially defined by way of two examples. In the late Autumn of 1884 a Buchan farmer was heard to complain ' I've gotten an ill job this mornin' in the deth o' a fine stirk by elfshot, an' the pity is he wasna fasent to a hair tether (a halter made of hair) fan the wapin wad a fa'en short o'm '. When asked whether it might not have been due to quarter-ill, he replied ' that could na be, my neebor an' me opent up the beast, an' there was a hole through his hert '[1]. Some few years before in 1867 a Mr Hew Morrison saw a cow which was said to have been killed by the fairies. When he pointed out to the farmer that her death had been caused by rolling over, and her long horns penetrating the ground had kept her in a position from which she could not rise, he was told that was the common way in which cows fall when struck by the *saighead sithe* or fairy arrow[2].

Elf-shot was the killing or wounding of an animal by an elf-arrow and in most cases the wounding was thought to be susceptible to cure. But before discussing the symptoms and means of cure, it is important clearly to establish their characteristics, the beliefs regarding their origin, and the methods by which they were used. The material particularly for Scotland and Ireland is so extensive that it is necessary to summarize it somewhat severely.

The origin of these arrows, elf-stones, elf-bolts or fairy-darts, in reality neolithic flints (PLATE IV), was shrouded in complete mystery and as a consequence considerable supernatural powers and virtues were ascribed to them. The uniformity of their shape attracted attention and the Rev. John Fraser, in a letter to Wodrow, dated 1702, thought it strange ' that these elf-stones, whether little or mickle hes still the same figure, though certainly knowen to fall from the aire. The commonality superstitiously imagines that the fairies hath made and gives them that shape, and that they doe hurt by them, which we call elf-shot '[3]. Similarly Kirk describes the weapons as being ' most what solid earthly Bodies, nothing of Iron but much of stone, like to a Soft Flint Spa, shaped like a barbed Arrow-head, but flung like a Dairt with great Force. ' These Armes (cut by Airt and Tools it seems beyond humane) have something of the Nature of Thunderbolt Subtilty, and mortally wounding the vital Parts without breaking the skin '[4]. Isobel Gowdie convicted for witchcraft in 1662 reports having seen them being made, 'the Divell sharpes them with his ain hand, and deliveris them to Elf-boys, wha whytllis and dightis them with a sharp thing lyk a paking needle '[5].

Lhwyd, however, appears to have been one of the first to recognize that they were indeed the weapons of early man. In his letter dated ' Linlithgow in Scotland Decemb

[1] *Scottish Notes and Queries*, 1st series, 5, p. 178.

[2] *Proceedings Society of Antiquaries of Scotland*, XVI, pp. 177–8.

[3] J. G. Dalyell, *The Darker Superstitions of Scotland*, pp. 356–7.

[4] R. Kirk, *The Secret Commonwealth of Elves, Fauns and Fairies*, 1893, p. 19.

[5] R. Pitcairn, *The Criminal Trials in Scotland*, III, p. 607.

17, 1699' he says, 'I doubt not but you have often seen (some) of these Arrow-heads they ascribe to Elfs or Fairies: They are just the same chip'd Flints the Natives of New England head their Arrows with as this Day. . . . These Elf-Arrow-heads have not been used as Amulets above thirty or forty years. Whence I gather they were not invented for Charms, but were once used in shooting here as they are still in America. The most curious as well as the Vulgar throughout this Country are satisfied they often drop out of the Air, being shot by Fairies, and relate many instances of it, but for my part I must crave leave to suspend my faith, untill I seè one of them descend'[6].

There is scant evidence on the methods adopted in propelling the elf-arrow. Traditionally the fairies of Nithsdale shot arrows tipped with elf-stones dipped in the dew of the hemlock from bows made from the ribs of a man buried where *three Laird's lands* meet[7]. The witch Isobel Gowdie records simply 'we sprang them from the naillis of our thoombs', and the following metrical charm accompanied their flight.

'I shoot yon (objective) in the devilli's name
He sall not win* heall hame
And this sal he alswa tow
Thair sall not be an bitt of him on liew'†[8]

Lhwyd in the same letter points out 'As to this Elf-stricking, their opinion is, that the Fairies (having not much Power themselves to hurt Animal Bodies) do sometimes carry away Men in the Air, and furnishing them with Bows and Arrows, employ them to shoot Men, Cattle, etc'[9]. This same belief is found in the Highland tale of *Black Donald of the Faery Throng*[10]. Donald while ploughing a strip of land on the farm of Baile-pheutrais, on the Isle of Tiree, was swept up in a fairy convoy and at their bidding dropped an arrow that killed a speckled cow.

The arrow was shot with such magical dexterity that the wounds inflicted were very difficult to find. Kirk goes so far as to say that the blows delivered by these weapons inflicted no wound, but the spot struck by them might be discovered with great difficulty for no external blemish was visible[11]. This was also accredited in Ireland where 'you may feel a hole in the flesh, but not in the skin where the cow has been struck'[12]. In Selkirkshire a farmer could take a blue bonnet that had been worn by the oldest member of the family, and with it 'rub the cow all over, and the wound will make its appearance or the place will be seen where the wound has been, although whole'[13].

The symptoms varied in different districts and from one country to another. A case of witchcraft in Bute in 1662 seems to reveal the reality of the belief and danger to man and beast, 'quhen they are shott there is no recovery for it and if thè shott be in the heart they dies presently, but if it be not in the heart they will die in a while with it'[14]. In general, however, the symptoms were dwindling herds, loss of milk or inferior milk, sudden cramp and seizure. In Caithness, for example, an elf-shot cow 'refuses its food,

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[6] *Philosophical Transactions*, 28, pp. 99–100.

[7] R. Cromek, *Remains of Nithsdale and Galloway Song*, p. 237.

* get. † living.

[8] Pitcairn, ibid., III, p. 607.

[9] *Philosophical Transactions*, 28, p. 99.

[10] A. A. Macgregor, *The Peat Fire Flame*, p. 16.

[11] R. Kirk, ibid., pp. 19–20, 21.

[12] *Statistical Account of Ireland*, III, p. 27.

[13] W. Henderson, *Folk-lore of the Northern Counties of England and the Borders*, p. 185.

[14] *Highland Papers*: 'Witchcraft in Bute', III, p. 27.

looks languid, and breathes hard '[15]. In England ' the disease (elf) in horned cattle caused an over-distention of the first stomach from the swelling of clover and grass when eaten with the morning dew upon it '[16], and in Ireland ' the animals' hair stands up on her back, her ears lifeless and hanging '[17]. An interesting variant description but reflecting the contemporary belief regarding fairy theft and changelings is recorded for the Shetlands. There it was though that when a cow or sheep was sick it had been shot with an elf-arrow, the real animal had been ' taken away ', and a fairy animal left in its place [18].

The cures and counter charms adopted were many and the entire gamut of superstitions was run to provide means to thwart the fairy and arrest the disease. The materials and method of the cures was never consistent always irrational and consisted in the main of a confusion of charms and amulets, invocations and incantations these last incorporating, often with complete impartiality, Christian and pagan prayers.

For example a crofter in Dunrossness, Shetlands, had a cow that suddenly turned ill and seemed about to die. He called in an old woman, a celebrated *trowist* who after a careful examination discovered a small dimple in the skin just opposite its heart. ' My bairn', she said, turning to the crofter ' da trows is shot her. Hass dee a Bible i da hoose at du cud bring me ?' The Bible was produced and she slowly turned over several of its leaves. Suddenly she tore one out. ' I sale tak a verse oot o' dis leaf, and whatin a verse dat is none knows bit me, for it's a saecret, an dem at wid be weel sud never middle wi' things as dey ken no o'.' She tore out a verse rolled the tiny scrap of paper into a pellet and pressed it into the dimple. After a short time she retrieved the pellet, the torn leaf and Bible, and departed assuring the crofter that his cow would recover[19].

A variant prescription from the same area directs the ' wise woman ' to take tar, a needle, a Bible, a firebrand and some ' fairy ' crabs. Waving the burning brand she walked three times ' widdershins ' round the cow, jabbing the animal with the needle, waving a leaf of the Bible over its back, and muttering an incantation. The firebrand was placed in a pot of tar and set at the cow's head, so that the fumes would make her cough. She was then given the ' fairy ' crabs to eat alive. The ashes of the firebrand were later mixed with the tar into three pills, which were administered to the animal on three successive mornings[20]. In the parishes of Sandsting and Aithsting cure was effected by folding a sewing-needle in leaf taken from a particular part of a psalm book and securing it in the hair of the cow. This was considered not only an infallible cure, but served also as a charm against future attacks[21].

In Caithness the cow that refuses food, looks languid, and breathes hard is handled in a similar way. The ' wise woman ' rubs and searches the hide of the beast for holes, not in the hide, but in the membrane under it. These she rubs well with her fingers and bathes them with salt and water. When all the holes are thus found out and rubbed, two table-spoonfuls of salt are dissolved in half a Scotch pint of cold water and a little of it poured in the ears, the remainder is poured down its throat[22]. An exactly similar

[15] Henderson, *General View of the Agriculture of Caithness*, p. 204.

[16] *The Denham Tracts*, II, p. 113.

[17] *Folk-lore*, XVII, p. 200.

[18] *New Statistical Account of Scotland : Shetland*, p. 142.

[19] *Scottish Review*, XXV, pp. 91–103.

[20] J. Spence, *Shetland Folklore*, pp. 144–6.

[21] *New Statistical Account of Scotland : Shetland*, p. 141.

[22] Henderson, ibid., p. 204.

procedure is recorded for Sutherland about 1885[23]. Further south in Aberdeenshire the injury was bathed with a preparation of salt and tar, or sometimes the wound was treated with salt dissolved in water in which elf-arrow had been dipped. This as a drench was also poured down the animal's throat, and in about half an hour it usually recovered[24].

In County Derry the cure is similar to one found in the south of Scotland. ' The wise-man boils in a clean pan a pound of gun-powder and a crooked sixpence. This is placed before the cow. She is made to drink the mixture. The gunpowder immediately blows the elf-arrow out through the hole, and the sixpence fitting on the heart, covers the wound made by the stone '. The record adds, ' if after the treatment the cow does not recover, she dies because God chooses it, and not from the elf-shot '[25].

The ' elf-doctor ' as he was called in the north-west of Ireland provided himself with a silverpiece known as ' the thirteen pence piece ' with a cross on it, several flints and three bad halfpence. As a preliminary measure he takes measurements of the cow's back, if it does not fall into three equal measurements each of which must be the length from the ' doctor's ' middle finger to his elbow, it is further proof of elf-shot. He takes the juice of the herb *Alchemilla vulgaris*—' Lady's mantle ', and places it in a pail with water scooped up against the flow of the stream where three townlands meet. The coins and one flint are added to the mixture, and the cow must swallow three sups of this. Some of it is then poured down her spine and massaged in with some of the dirt from her forefeet. The last drops are cast into her ears[26].

In the north of England the ' elf-shotten ' animal is cured by touching it with one of these arrows and administering as a drench water in which an elf-arrow has been dipped[27]; and a simple cure for calves was to rub their mouths, lips and nose with their own dung[28].

Elf-arrows as we have already noted were also used in Scotland as cures and defensive charms but certain precautions had to be taken. Sir John Evans quotes Dr Hill Burton as saying that it was an article of faith in Scotland so late as 1872 ' that elf-bolts, after finding, should not be exposed to the sun '[29]. In Kirkcudbrightshire ' faery darts ' lost their efficacy as curative and defensive charms were they to touch the ground[30].

Many and varied mystic charms and amulets were brought to bear to ward off or arrest the disease. Odd-shaped stones including elf-arrows, pieces of wood and metal, words of strange sound and scraps of formulae, all were believed to have more or less equal potency. A flat whorl of hard sandstone the property of a famous witch Meg Elson who lived in the Fingaul district of Kirkmaiden was used for curing the elf-shot in cattle. A red woollen thread was put through the hole, and it was dipped three times in water taken from a well on which the sun did not shine, by a young girl with red or yellow hair. A rhyme in Gaelic was said over the water which was then given to the cow to drink[31]. Another made of steatite, at one time the property of the Clan

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[23] *Proceeding Scottish Anthropological and Folklore Society*, III, pt. 3, p. 82.

[24] J. Logan, *The Scottish Gael*, pp. 339–41.

[25] Henderson, ibid., pp. 186–7.

[26] *Folk-Lore*, XVII, pp. 200–210.

[27] Ibid., XXIII, p. 45.

[28] J. Brand, *Observations on Popular Antiquities*, 1841–2, II, pp. 401–3.

[29] J. Evans, *Ancient Stone Implements*, p. 326.

[30] L. Spence, *Fairy Tradition of Britain*, p. 173.

[31] *Proceedings Society of Antiquaries of Scotland*, 3rd series, III, p. 473.

Caskill at Bracadale, Skye, was used more simply by dipping it in water which was afterwards given to the cattle to drink. Apparently in 1885 the Free Kirk minister of Bracadale, Skye, was used more simply by dipping it in water which was afterwards given to the cattle to drink. Apparently in 1885 the Free Kirk minister of Bracadale determined to root out what he considered the devil and his superstitious rites ordered the people to deliver up all the elf-shot charms they had in their possession. It is said that he got two creels full of them which he dumped in the middle of Dunvegan Loch[32]. Amber beads were used as late as 1845 in the highlands of Scotland. Worn as a charm on a ribbon they were dipped three times in water which was given to sick beasts[33]; and in the same area spindle whorls found in brochs were tied between the horns of cattle on the first night of the quarter[34].

During her trial for witchcraft in 1607, Barbara Paterson in Newbattle, Midlothian, confessed using the following charm to cure elf-shot cattle :

' I charm thé for arrow-schot,
For dor-schot, for wondo-schot,
For ey-schot, for tung-schot,
For hert-schot, all the maist,
In the name of the Father, the Sone and the Haly Gaist,
To wend out of flesh and bone,
In to sck and stane
In the name of the Father, the Sone and the Haly Gaist '[35].

Dalyell, cites Scheffer who, explaining the word ' skott ' observes ' if a creature be suddenly struck down by a disease exhausting his strength, or proving almost fatal, the vulgar describe it to magic, calling it skott, that is, a dart, which is the cause '[36]. As used in Scotland shot generally means struck down, and ' I charme three for arrow schot ' probably denotes the same interpretation.

Scattered throughout the pages of Anglo-Saxon MSS concerning leechdoms, remedies and recipes we find charm cures for elf-shot in man and cattle, in the form of pagan and Christianized-pagan prayers, narrative chants and simple recipes. In the collection entitled *Lacnunga* is given a simple recipe for Elf-shot. ' For sudden stitch : Feverfew, and the red nettle that growth through into a house, an waybroad. Boil in butter '[37].

Following on this is a narrative charm in the form of a pagan lay against Elf-shot :

' Loud were they, yea loud, when they rode over the hill ;
Fierce were they when they rode over the land.
Shield thou thee now : then mayest thou survive this onset.
Our little spear, if herein thou be.
Stood he under the linden (shield) under the light shield,
Where the mightly women got ready their powers,
And the whizzing darts they sent.
I back to them will send another,
A flying shaft in defence against them.

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[32] *Proceedings Society of Antiquaries of Scotland*, 3rd series, III, p. 474.

[33] Ibid., pp. 476–7.

[34] *Folk-Lore*, XVI, pp. 335–6.

[35] Pitcairn, ibid., II, pp. 535–6.

[36] Dalyell, ibid., p. 355.

[37] O. Cockayne, *Leechdoms, Wortcunning, and Starcraft of Early England*, III, p. 53.

Out little spear, if herein it be,
Sat a smith, a knife he sledged,
Small the iron, woeful the wound.
Six smiths sat; battle spears they wrought.
Out, little spear! not in, spear!
If herein be of iron a fragment,
Hag's work, it shall melt away.
If though wert shot in skin, or shot in flesh,
Or shot in blood, or shot in bone,
Or shot in limb, may thy life ne'er be shattered.
Were it Aesir Shot, or Elves' shot
Or Hag's Shot, now will I help thee.
This is thy cure of Aesir Shot; this to thy cure of Elves' Shot;
This is thy cure of Hag's Shot; I will help thee '[38].

And to end this section two charm cures for an elf-shot horse. The first is a simple pagan recipe, while the second clearly indicates the influence and sanctioning action of the Christian Church. ' If a horse be elf-shot, then take the knife of which the haft is horn of a fallow ox, and on which are three brass nails, then write upon the horses forehead Christs mark, and on each of the limbs which thou may feel at: then take the left ear, prick a hole in it in silence; this thou shalt do; then take a yerd, strike the horse on the back, then will it be hole. And write upon the horn of the knife these words, " Benedicite omnia opera domine, dominum ". Be the elf what it may, this is mightly for him to amends '[39].

' If a horse is " shot ": May the beasts on the earth be healed; they are shaken indeed in health. In the name of God the Father and of the Son and of the Holy Ghost may be devil be cast forth by the laying-on of our hands. Who shall seperate us from the love of Christ by the invocation of all thy Saints, by Him who liveth and reigneth ever without end, Amen. Lord, wherefore are they increased thrice; Rejoice, loose their chains, O Lord, thrice '[40].

Charms and amulets consisting of or incorporating arrays of spirals and whorls and complicated labyrinths patterns were everywhere recognized as an effective means of protection against evil spirits. It is not surprising, therefore, to find such a system of defensive magic associated with the very fundamental operation of ploughing. Throughout most of the counties of Scotland and the north of England there are innumerable fields showing a peculiar but similar curved plough strip of crooked ridge pattern. This strip, Scottish ' rig ', denotes the strip of earth, about fifteen feet wide, cast up by the plough between groups of furrows. In the Kilbirnie district of Ayrshire where such crooked ridges are very common, Smith observes ' that on the hills there are marks of ancient cultivation known as elf-furrows '[41]. The crooked line of these was thought to confuse or ' wander the fairy '* and therefore afforded a very good means of protection for the plough oxen against the elf-shot.

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[38] Grattan and Singer, *Anglo-Saxon Magic and Medicine*, p. 175.

[39] Cockayne, ibid., II, p. 291.

[40] Grattan and Singer, ibid., p. 185.

[41] *Proceedings Scottish Anthropological and Folklore Society*, III, pt. 3, p. 82: quoting John Smith, *Prehistoric Man in Ayrshire*, p. 77.

* Here we may have the reason for the S-shaped wall-ties invariably found on farm house, cottage and out-house walls.

*a.* FIELD-SHED AT SACHSELN, SWITZERLAND
*Ph.* James Walton

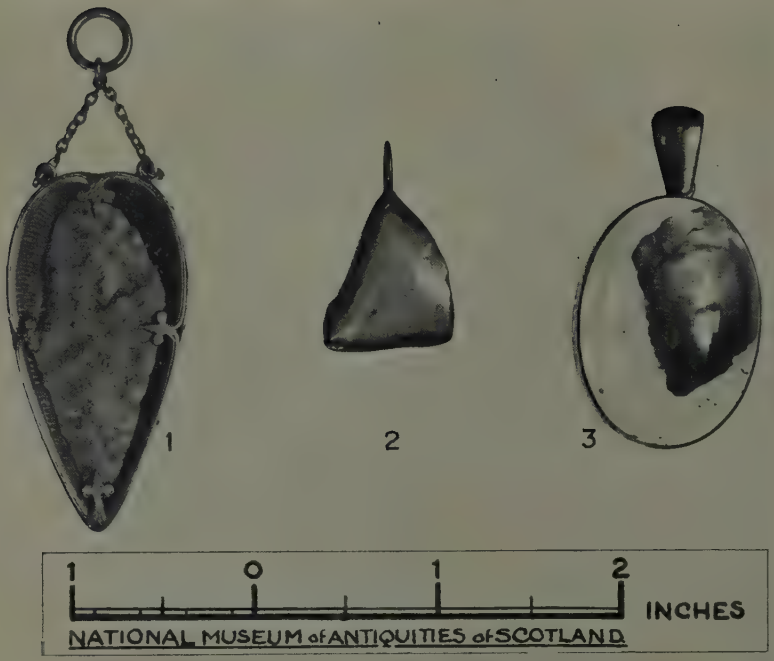
*b.* TOWN END BARN, TROUTBECK
*Ph.* James Walton

*facing p.* 154

*a.* POOL BANK BARN, WITHERSLACK, WESTMORLAND –BEFORE ALTERATION
*Ph.* Will F. Taylor

*b.* TOWN FOOT, TROUTBECK
*Ph.* James Walton

PINSEC VILLAGE, WALLIS, SWITZERLAND
*Ph.* Theo Frey




EXAMPLES OF SCOTTISH ELF-ARROW CHARMS

1. Elf-arrow mounted as an oval gold pendant; late 18th century
2. Elf-arrow of bluish agate set in silver for suspension, engraved K/IM · long preserved by the Stewarts of Garth, Fortingall, Perthshire
3. Elf-arrow mounted as a gold and enamel pendant; 19th century

LINDHOLM: SHIP-SHAPED ENCLOSURES IN THE SOUTHERN PART OF THE CEMETERY

# PLATE VI

AIR-PHOTO OF LINDHOLM
*Ph.* Ramskou

A MODERN QUERN-QUARRY, THE CAVE OF HERCULES, NEAR TANGIER
Note semi-circular cavities from which querns have been hewn
*Ph.* E. Cecil Curwen

The fairies, imagining the furrows to be straight sighted along them only to be baulked by their curvature. The Scottish examples, ' bow'd rigs ' as they were termed are found in a wide variety of shapes—elongated and reversed S-shape, wide arc, deep and shallow bows, crooked and fan shaped. The best examples are to be found in the Slamannan district. One aged local farmer there when questioned on the reason for ploughing to this pattern replied that it was ' to wander the fairies . . . so that they couldna' shoot straucht. It was bad luck ' he continued, ' even to try to plough the rigs out and those who had endeavoured to do so had had nothing but the worst luck afterwards. Crops would never grow on their land again. He knew because he had seen folk trying to plough them out '[42].

The examples on England are most frequently found in north Derbyshire, but they occur in greater or lesser numbers in Yorkshire, Durham and north Nottinghamshire[43]. In north Durham ' some old pasture fields displayed twisted ridges cast up by the plough . . . a precaution against the fairies shooting at oxen which drew the plough '[44].

The last case of ploughing bowed rigs deliberately to wander the fairy comes from Lanarkshire in Scotland where in a field about half a mile west of Cumbernauld remains of the rigs are still to be seen[45].

Such were a few of the cures carried out in an endeavour either to thwart the fairy or arrest the disease caused by the elf-shot. The examples chosen suffice to show the overpowering influence of the supernatural, and once the supernatural origin of these flints was firmly fixed in the peasant mind it naturally followed that they become the objects of suspicion and fear. And in this passive acceptance of the supernatural we have perhaps a continuation of the most primitive belief that all natural phenomena were the work of unseen spirits to whom was attributed all the ills that beset mankind. The close association of the fairy with the soil the sacrosanct nature of fairy soil and the evidence for fairy cattlemen and agriculturists all tended towards a common focal point for attributing to them the particular ills that beset the farmer. When his cattle, oxen or horses in which his very existence was bound up were threatened with a disease that defied regular diagnosis, how natural it was for him to resort to superstitious cures. The charm was tied to the diseased beast, chanted over the beast or put in water which it drank. The animal through vigour or stamina regained its health. One such recovery counted more in favour of the charm than any number of deaths counted against it. Bacon sums it up when he says, ' Men observe when things Hit, and not when they Miss. And commit to Memory the one, and forget and pass over the other '[46]. Such simple modes of obtaining protection or cure it is clear could not be supposed readily to fall into disuse, but the most remarkable feature of their history is their survival, despite the enlightening conditions of succeeding ages, up to the late nineteenth century.

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[42] *Proceedings Scottish Anthropological and Folklore Society*, III, pt. 3, p. 77.

[43] *Agricultural History Review*, III, pt. II, pp. 80–94, where the whole question of curved plough strip is discussed with particular reference to its historical significance.

[44] *The Denham Tracts*, II, p. 146.

[45] *Proceedings Scottish Anthropological and Folklore Society*, III, pt. 3, p. 75.

[46] Bacon, *Sylva Sylvarum*, X, p. 988.

# St. George the Vampire*

by A. J. B. Wace

THE saints in Greece occasionally have curious epithets. In Attica all know St. John the Hunter. In Naxos there is St. George the Drunken and in Thessaly you will find St. Nicholas the Murderer. Now too in Argolis you will hear of St. George the Vampire.

The little church or rather shrine dedicated to that saint is in a kind of open cave which is really the entrance to a Mycenaean rock cut chamber tomb and it lies on the outskirts of the village of Thymari at the base of the tangle of hills at the western foot of Mount Arachnaeus. If you go to the village and visit the shrine you will probably be told fantastic tales of the Vampire and the English archaeologist who was afterwards killed fighting the Bulgarians. The exact circumstances of the case you will probably not be able to discover. Even those of the village most closely connected with the events which led to the dedication of the shrine have allowed more freedom to their imaginations than they should. The village priest Athanasios nowadays is in his dotage and his cups, and not competent to give a credible or even a coherent version of what really took place and the part he played. Evesham himself is dead, because as you know he was killed on the Salonika front in 1917. Our foreman (for it all happened when Evesham was excavating the Mycenaean site he had discovered at Kastraki near Thymari) died of diabetes some five years later. Of the two watchmen one was killed while serving in the Serres Division on the Macedonian front in 1918 and the other was lost somewhere in Asia Minor in the disastrous retreat in 1922. I am therefore the principal survivor for I was the only other archaeologist with Evesham at the time unless you count our technician and mender Spyros, but his mind was always far more concerned with dressing up so as to make an impression on local damsels. So it is, I think, desirable that I should put on record as soberly and straightforwardly as I can all the various happenings. Then those who think it worth their while to read what I have written can judge for themselves and adopt any explanation they please. I propose therefore in what follows to put down without prejudice the events as they occurred and as I observed them at the time. I have refreshed my memory by my note book.

As I have written elsewhere, Evesham discovered the important Mycenaean settlement on the hill of Kastraki round the chapel of the Panagia Makrembolitissa in the spring of 1911. Kastraki itself lies in the plain, surrounded by vineyards dotted with fruit and olive trees slightly separated from the foot of the main ridge on which the village of Thymari itself stands. Below Thymari towards the base of the slope and opposite Kastraki Evesham found, when he began his excavations, a cemetery of Mycenaean rock-cut chamber tombs the existence of which he had suspected when he first explored the site. The excavation itself was carried out during June and July when the fine, dry weather made the work go easily. The expedition consisted of Evesham, myself, Jack Stuyvesant, a travelling student from Yale and a distant cousin of Evesham, and David Jones, a Welsh architectural student from Cambridge as surveyor and draughtsman.

After the excavation had been in progress for about a month and we had cleared half a dozen tombs in addition to our exploration of the inhabited site and the Cyclopean walls on Kastraki we found one day the entrance passage of what promised to be a large, rich, and important tomb. The passage, cut straight into the rock of the sloping hillside as

* The thanks of both Author and Editor are due to Mrs Elektra Mcgaw for drawing the illustrations.

an open gallery, was wider than the rest. There were also other peculiarities which we noticed as we proceeded. Usually in the soil fragments of pottery and occasionally small objects are found which have been thrown out of the tomb on some occasion when the family vault was reopened to admit a fresh tenant. Here, however, we found literally nothing at all in the soil we dug out, sifted, and observed with special care. Further, the work was impeded by great masses of large stones and heavy rocks, which looked almost as if they had been deliberately placed there by the ancients to annoy any archaeologist of times to come who might try to violate the sepulchre.

Finally, in front of the door of the tomb itself the whole width and height of the entrance passage was blocked by a solid mass of stone. I remarked to Evesham that it had probably been purposely built up in this manner by the original owners of the tomb to protect their ancestors and their treasures from the investigations of any Schliemann of the future. Old Manoles, our most experienced workman, expressed the view that the ancients had done this to prevent ' them ' from getting out, but he did not specify what he meant by ' them '. He did, however, one day call my attention to the fact that on the surface of the hillside above the chamber of the tomb there was no vegetation. True on a barren rocky Greek hillside like that little does grow except Greek sage, thyme, spurge, and similar plants that can resist the summer drought; but here even such herbage was absent.

After some days of hard work we removed the mass of stone and then found before us the doorway of the tomb. This again was most securely walled up with gigantic cyclopean blocks of the hardest limestone, tightly fitted together with great skill and with all the joints carefully packed with yellow clay. When they saw this our workmen and even our foreman rubbed their hands and said we were bound to find great treasures of gold inside, for only to protect gold or ' ivory statues with diamond eyes ' would any man ever have gone to such trouble. When the heavy job of removing these great blocks had gone on for two days Stuyvesant, badly stung by a scorpion which came out of a crack between two boulders, had to return to Athens for treatment. He was accompanied by Jones whose spectacles had been shattered by a splinter that flew off one of the rocks when he was testing it with a crowbar, and he could not continue his work without procuring a new pair.

Our workmen began to speculate and even to bet on what we should find in the tomb. Gold was the dream of all, and our foreman who had absorbed a little knowledge of antiquities suggested, to tickle our archaeological palates, bronze mirrors with carved ivory handles, sculptured steatite jars, engraved sealstones, golden tablets with mysterious signs. Old Manoles, however, with a dry chuckle foretold that there would be nothing in the tomb but the bones of a donkey, and put forward the theory that it was all a great prehistoric practical joke devised by Odysseus for the discomfiture of tomb robbers and resurrectionists.

Finally one Thursday we removed the last stones and were able to enter the chamber which, owing to the solidity of the blocking wall in the doorway, had less than half a metre of fine soil on its rock floor. To our surprise and to the dismay of all the workmen except old Manoles, there was no gold visible. No vases even of clay, still less of precious materials, and no objects of any kind were to be observed anywhere. Indeed there was only one skeleton and that lay against the centre of the back wall, flat on its back, with its head to the west. It was too late that afternoon to begin to remove the soil from the tomb and sift it in search of small objects or jewellery. So we picked out one of our trusted men and appointed him watchman to sleep in the doorway of the tomb that night to prevent unauthorized interference.

We had rented for our headquarters a large new stone-built house with a fine first floor balcony on the edge of the village. Evesham and I shared a room and in it kept the boxes containing the more important finds. Early on the Friday morning just before dawn we were awakened by a violent knocking at our door and in burst the watchman. We hastily lit the lamp and saw him standing before us wild-eyed and all of a tremble. He asserted with many appeals to the Virgin and the saints that all had gone well till about half an hour before. Then he became aware of a rustling sound and a slight rattle as of bones. Evesham said it was someone coming up the entrance passage from outside making a noise to frighten him. The watchman denied this and said the noise was within the tomb. He had called out a challenge but received no answer. Then something touched his foot and he lost his nerve and ran to tell us. We summoned our foreman and the three of us armed with good electric torches went to the tomb. We could see no signs of any disturbance in the entrance passage and so walked carefully up it searching the sides with our torches. As we reached the entrance the first rays of ' rosy fingered dawn ' shot across the sky and at the same time we heard a cock crowing. We explored the tomb chamber itself in great detail but found no signs of disturbance except that the skeleton seemed to have been moved slightly and in the soft earth of the tomb there were odd marks as if a bird with curious feet or a peculiar reptile had dragged itself over the floor. The foreman bluntly expressed the view that the watchman had entered the tomb and had begun to rifle the skeleton, when something interrupted him and so he had invented the story of something mysterious and imagined he could prove his good faith by running to tell us.

The next day we carefully cleared out all the fresh earth from the tomb and sifted it thoroughly but without finding anything. We also cleaned and photographed the skeleton most carefully. On it and round it there was nothing, but among its ribs was a curious bronze spearhead of a type which Evesham said had been found only at Mycenae itself, in Thessaly, and in Santa Maura. Evesham removed the skull from the skeleton which was in remarkably good condition and said we must keep it safe for the craniological museum in Athens. He also took the spearhead and put it gently into a stout cardboard box lined with cotton wool. The skull which was wrapped in cotton wool in a palm leaf basket, and the spearhead in its cardboard box we locked up in a strong wooden box with a stout padlock. It stood between our camp beds and on it Evesham kept some of his personal belongings, such as an ikon of St. George and a New Testament in Greek which the Abbot of Stephani had given him not long before on his birthday.

To guard the tomb that night we selected another watchman, for Evesham decided we would remove and pack the rest of the skeleton the next day. This man had served in the royal Evzone bodyguard at Athens and had shot two wolves on Mount Arachnaeus. There was thus no fear of his courage and our foreman and the village doctor both guaranteed his absolute honesty. Further we knew him as a first-class workman and had great confidence in him. He took with him an old six chambered revolver and a heavy cavalry sabre and set himself to watch in the doorway determined to make short work of any intruders.

Towards four o'clock on the Saturday morning the whole village was aroused by the wild echoes of revolver shots and presently our fearless watchman came running with his story. He like his predecessor had heard a rustle and a rattle as of bones coming from inside the tomb. He could see nothing either in the entrance passage or in the tomb itself. He challenged but could obtain no answer. So then he fired four times into the tomb itself and the last two shots down the entrance passage to clear the way. Then his nerve shaken by the reverberation of the explosions and the flashes of the shots he had

come to tell us. Again we went and explored the tomb. We found all in order, with the watchman's goat hair cloak where it had fallen from his shoulders and in the entrance passage his empty revolver and the cavalry sabre where he had dropped them in his flight. Only in the tomb itself we found the skeleton had disappeared and again we noticed the curious reptile like tracks across the little soft earth still remaining on the floor. Evesham was puzzled. I thought the villagers were playing some game at our expense and suggested they were probably in collusion with the watchman to rob the tomb and had found some secret hiding place of treasure.

That day our foreman went to Argos to attend the weekly market and bring back some badly needed supplies. Evesham and I spent most of the day in the tomb. We swept up the rock floor very carefully and sifted all the earth and dust but we found nothing. Not even a potsherd rewarded our efforts. We had to work alone because not one of our workmen would come into the tomb with us. We stopped work as usual about five o'clock because Saturday was pay-day. Then after paying the men and writing up our accounts and checking the results we sat down to our well-earned supper. It was sometime after dark and the moon now past the full had risen when our foreman returned from Argos. He handed to us his marketings, and we observed that he seemed rather white and nervous. So Evesham asked if anything had gone wrong. He replied that he had often heard tales of things that wandered about the hills after dark expecially in the watercourses but he had never before believed in such tales. We asked further why he was now inclined to believe them.

' Listen ', he said, ' to what has just happened to me and my horse '.

He was just approaching the village on his return and had reached the bottom of the slope up which the bridle path runs. This goes zigzag up the hill protected on either side by a low stone wall to keep a clear track among the dry herbage and passed not far from the Mycenaean cemetery we had discovered. Soon after it begins the ascent the bridle path crosses a dry watercourse. By the time he reached this the moon had risen. As he rode his horse across the watercourse it began to show strong signs of nervousness. It fidgeted, jibbed a little, and then displayed a desire to bolt. When he reined it in hard the horse neighed and then dropped its head and tried to kick. The foreman could see or hear nothing. He looked around and behind him and at the sides of the path but the moonlight revealed nothing, no living animal, no human being which might cause a horse to shy. After he had passed the watercourse and was following up one of the zigzags his horse was more nervous than ever and fidgeted violently. He too himself then heard or thought he heard a rustle and rattle as of bones in the dry herbage behind the low stone wall at the side of the path. Still he could see nothing. Finally he became cross and turned in his saddle and called loudly to the unseen.

' Come out and show yourself ! ' he shouted, ' I am not afraid of you. I have a gun. Don't be so cowardly. Come out and show yourself ! ' I am not afraid !'

Nothing appeared. There was no answer. Soon the path came abreast of a small chapel of the Virgin on the edge of the village. His horse became normal again and whinnied for its feed. There was no rustling or rattling. Still there had been something. What was it? Do such things really exist ? Or are they mere imagination ? Evesham suggested it was imagination and that the horse had shied at shadows cast by the moonlight for horses are often frightened by moon shadows more than by sun shadows.

' Don't I know my own horse ? ' asked the foreman indignantly. ' I know it felt or saw something. Though I never believed them before, such things exist apparently '. After more conversation about the excavation and its affairs the foreman bade us good night and we retired to bed.

When we were in bed before I extinguished the light I asked Evesham if he did not think we had better lock our door and shutter the window.

' Now, Cassius, don't be a silly ass ! ' he objected. ' Who is going to attack us here ? We are far safer in this village than anywhere else in the world. You could not be safer in Piccadilly Circus surrounded by six of the biggest London bobbies. Also I tell you flat I am not going to have the window shuttered. Who would want to frowst on a gorgeous moonlight night like this ? '

Fig. 1

The foreman's story, however, must have told on my nerves because I slept badly. I dozed fitfully and did not seem able to sleep properly. My blanket slipped off, the mattress was lumpy, my pillow would not keep straight and the very frame of the camp bed seemed to find every bone in my body. I also had dreams, bad dreams, nightmares. I felt some unseen danger was threatening me, threatening us, and I helpless and powerless could do nothing. Finally I seemed to be awake and thought I could hear the danger creeping nearer and nearer with a rustle and a dry rattle across the bare boards of the floor. I dreamt that in my despair I crossed myself fervently and called loudly on the Virgin in Greek. Then I really awoke and heard the echo of my cry in the room. I seized the electric torch by my bedside and flashed it round. I could see nothing except

that the night breeze had apparently set our door ajar. Alongside me Evesham lay sleeping peacefully with his right arm outstretched just touching the ikon of St. George. Reassured I switched off the torch and curled myself up in the blanket and slept till day at last broke clear and sunny.

That day Sunday the church bells in the village were ringing all day to keep off evil spirits and all devils. The priest Athanasios after the morning service went in full form to Kastraki. He took the ikon of the Panagia Makrembolitissa thence in solemn procession with chants and incense through and all round the village (FIG. 1) before returning

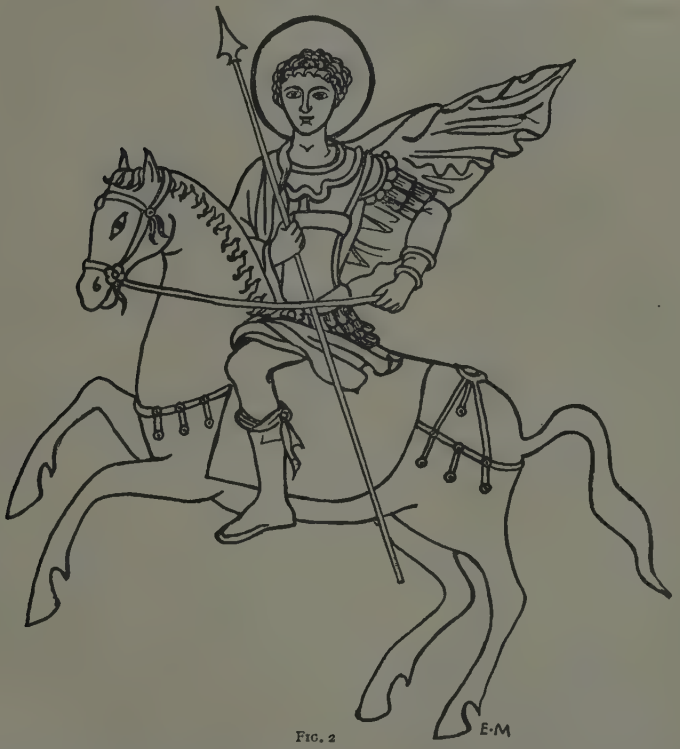


FIG. 2

it to its chapel where St. Narcissus is buried. In the afternoon he came and had a long private talk with Evesham who never told me what it was all about. I can only surmise from what followed.

The next morning when we should have resumed work after breakfast at about half-past eight Evesham first bade the foreman summon all the men to the tomb. Then he went to our house and came back with the basket in which the skull was packed and the cardboard box containing the bronze spearhead. Accompanied by the priest he laid the skull as near as he could in the position in which he had found it and placed the spearhead where the ribs should have been. This done the priest withdrew to vest himself. He came back in a ceremonial procession accompanied by the priests of two or three neighbouring villages also fully vested. With them was a company of boys as acolytes bearing

lighted candles, censers, crosses, vessels of holy water with sprigs of basil, and other ritual appurtenances. The priests went round all the tomb sprinkling it with holy water and censing it frequently while they intoned appropriate prayers. This done led by Athanasios the service for the exorcising of evil spirits was chanted. Evesham and I with our foreman stood in the tomb just behind the priests and there were also in the tomb some of the bolder spirits among the villagers including old Manoles. The more timid remained outside in the long wide entrance passage or else gathered on the hillside above whence they could peer down into the tomb. As the service reached its climax there was a sudden violent gust of wind which swept up the entrance passage into the tomb. The candles, the sole illumination, for the sun was overcast, flickered strongly for a few moments and then went out. We were plunged into complete darkness and in the sudden hush heard a rustle and a dry rattling followed by the sound of metal striking an object. The next instant there was indescribable confusion. All almost with one accord began to call loudly on the Virgin, the Almighty, the archangels and all the hosts of the saints and at the same time to rush madly for the entrance to escape. Our foreman, a tall and powerful man, put one arm round Evesham and the other round me and propelled us by main force through the crowd and along the entrance passage into the daylight and open air. The whole tomb and its entrance passage emptied as if by magic in spite of the turmoil. As the congregation recovered its breath, quick excited talk began to enquire what had happened.

'Did you see him? We saw him!' some of the acolytes cried, crossing themselves. They were asked whom they had seen.

'The saint in armour on the white horse' (FIG. 2), they replied in chorus. They declared that he, spear in hand, had dashed into the tomb with a rushing wind just before the candles were blown out. Neither Evesham nor I had seen anything of the kind, but Evesham said he was going back into the tomb to see. Ignoring the protests of the villagers and accompanied only by our foreman and by the village priest Athanasios we lighted candles and re-entered the tomb. The floor was covered with fallen candles, ikons, crosses, censers, holy water vessels, sprigs of basil, service books, and all the ritual objects which the religious had dropped in their panic. We turned our candles to the centre of the back wall of the tomb. There was the skeleton complete as we had first found it lying on its back with its head to the west. Sticking upright among its ribs in the region where its heart would be if a skeleton could have a heart was the bronze spearhead. In front of it also standing by some miracle upright was an ikon of St. George which someone had dropped. The priest and our foreman as they collected the fallen objects said that all would now be well.

The same afternoon the villagers under the leadership of Athanasios and our foreman walled up the tomb again, but they left the ikon of St. George, the skeleton and the spearhead exactly as we had found them. When the walling of the doorway, which was done solidly and thoroughly, was satisfactorily completed a small niche with a half roof was made in the front of it. Another ikon of St. George was placed in it with a lighted oil lamp hanging before it. St. George, they said, it must be, for he was the patron saint of Evesham himself and of the kings of England and of Greece and was accustomed to deal with dragons and all evil things.

When I revisited Thymari on my return to Greece in 1919, I found that the pious villagers had enlarged the little shrine in the entrance passage of the Mycenaean tomb into a sort of small chapel which they were now calling St. George the Vampire. I lit two candles, one for Evesham and one for the unhappy soul within.

# Zosimus on the End of Roman Britain

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WHEN we study the end of the Roman occupation of Britain we tend to glue our eyes so closely to the numismatical and archaeological evidence that there seems to be some danger of giving the literary authorities rather less attention than they deserve. But the relevant passages of Zosimus are of capital importance, and it is proposed to examine them here.

It will not be denied, I think, that Zosimus is one of the most incompetent of the Greek historians. Nevertheless, as in the case of all ancient historians, we are bound to suppose that Zosimus' statements are accurate unless we have some sufficient reason for doubting them. It is a mistake in method to ascribe errors to him when there is no evidence for doing so. Now in the passages under discussion he is supported by other writers in some particulars and he is our sole authority in others. It does not follow that where he is our only authority his statements are necessarily wrong. His source here is Olympiodorus, who, though an Egyptian Greek, seems to have dealt mainly with Western events in his History. Born *c.* 365, he was an exact contemporary of the last days of the Roman administration of Britain. His History in 22 books covered the fateful years 407–25, and an examination of his fragments (mostly preserved by Photius) gives good reason for supposing that he was a writer of exceptional interest and reliability[1]. It would be folly to ignore the narrative of such a writer, even though that narrative survives only at second hand.

Zosimus, VI, 2, 1, tells how, when Honorius was consul for the seventh time and Theodosius for the second time (A.D. 407), the troops in Britain elevated Marcus, Gratianus, and Constantine in quick succession[2]. A page or two later (VI, 3, 1) the historian gives the reason for this behaviour on the part of the British army. The Vandals, Sueves, and Alans crossed the Rhine when Arcadius was consul for the sixth time with Probus as his colleague (A.D. 406). Their activities inspired fear among the troops in Britain, for it was thought that they were about to cross the Channel; and it was to meet this threat of a barbarian invasion that the British troops set up their three successive usurpers. So far, Zosimus' narrative cannot seriously be questioned. It is true that Marcus was elevated before the opening of the year 407, as we know from a fragment of Olympiodorus himself (loc. cit.); but there can be no doubt that the overthrow of Gratianus, the elevation of Constantine, and the latter's departure for the continent took place in 407[3]. It also seems to be true that the Vandals, Sueves and Alans

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[1] See *Classical Quarterly*, XXXVIII, 1944, 43–52.

[2] Cf. Olympiodorus frag. 12, Sozomen IX, 11, 2 (also from Olympiodorus). Orosius VII, 40, 4, omits mention of Marcus. *Chronica Minora* I, 465, s.a. 407, II, 70 s.a. 411, omit mention of Marcus and Gratianus.

[3] *Chronica Minora* I, 465, s.a. 407. That these events fell partly in 406 and partly in 407 was seen by E. A. Freeman, *Western Europe in the Fifth Century*, London, 1904, 45 n.*, 46 esp. n†.

did not cross the Rhine in 406, but on 31 December 405[4]. The point is not of great importance for our purpose. If we accept the traditional date, 31 December 406, we must suppose that Marcus and Gratianus were elevated for unknown reasons, but it will still remain true that the *municeps* Gratianus was deposed and the soldier Constantine was elevated because of the fear of a barbarian invasion of Britain. At all events, these are slips such as might be found in historians with far greater pretensions than Zosimus. Moreover, we know from an independent source that the Vandals and their companions after crossing the middle Rhine turned towards the north-west and their raiding bands reached Amiens, Arras, Thérouanne, and Tournai[5]. It must indeed have seemed likely to the army in Britain that an invasion of the island was pending.

When Constantine crossed to Gaul in 407 he brought some of the British troops with him[6]; but there is no hint in Zosimus that the departure of this force had any immediate repercussions in Britain. Early in 409, however, Gerontius, who had left Britain along with Constantine, had been appointed *magister militum* by him, and was now in Spain, intrigued against Constantine and incited the Vandals and their allies to attack him. Constantine saw that he could not hold out against the barbarians, as the bulk of his troops were in Spain under Gerontius' control; and so the barbarians became the masters of Gaul[7]. The great merit of Zosimus is that he now brings us back to Britain and enables us to see something of what happened there when Constantine found himself in this critical position. The situation in Britain was that the garrison had been reduced in strength by Constantine's departure (and may have been still further depleted by the Saxon raid of 408)[8], but there had until now been an effective force in Gaul or Spain. Thanks to Gerontius' intrigues, however, this was no longer the case in 409: there was now no effective force under Constantine's command. The population of Britain, therefore, had a free hand, and the result, according to Zosimus, VI, 5, 2, was that a rebellion broke out in the island.

The story is entirely credible, but what is most remarkable is Zosimus' description of the character of this rebellion which broke out behind Constantine's back and which Constantine was in no position to suppress. It was a separatist movement: the Britons rebelled not against Constantine and not against Honorius but against Rome itself. The point must be stressed, for the fact is often mis-stated[9]. Even Freeman, op. cit. 48, does not go far enough when he writes: 'Some of the expressions used in describing the elevation of Marcus [*leg.* in describing the revolt of 409] almost read like a formal secession from Rome and the establishment of a separate empire in Britain'. They read precisely like that. Zosimus' language wholly excludes the view that the rebellion was directed against Constantine and that its purpose was to re-affirm loyalty to Honorius. The rebels' purpose was 'to live by themselves, no longer obeying the Romans' laws'. The aim of those who rebelled was to get out of the Empire altogether. But Zosimus

[4] Norman H. Baynes, *JRS*, XII, 1922, p. 217–20=*Byzantine Studies*, London, 1955, pp. 338–42, whose argument, however, has been criticized by S. Mazzarino, *Stilicone: la crisi imperiale dopo Teodosio*, Rome, 1942, p. 278, n. 3, and is rejected by C. Courtois, *Les Vandales et l'Afrique*, Paris, 1955, 38 n. 3.

[5] Jerome, *Ep.* CXXIII, 16 with Courtois, op. cit. 42 ff.

[6] Olympiodorus loc. cit., Procopius *BV*, III, 2, 32, cf. Zosimus VI, 1, 2.

[7] Zosimus VI, 5, 2.

[8] *Chronica Minora* I, 654, s.a. 408.

[9] E.g. in R. G. Collingwood and J. N. L. Myres *Roman Britain and the English Settlements*[2], Oxford, 1937, p. 291 f.

allows us to be even more specific. He enables us to see that the rebellion was not simply a political one: it had a social content, too. For the historian goes on to say that this British revolt had repercussions in Gaul: the whole of Armorica and other provinces of Gaul imitated what had happened in Britain and 'liberated themselves in the same way, casting out the Roman officials and establishing a State of their own by force'. Now we have information from other sources about this Armorican rebellion, which was only crushed in 417. It was a revolt of the poorer classes in the countryside against the Roman officials and the landed gentry. The former were expelled, the latter enslaved. It was, in fact, a rising of those who were called 'Bacaudae'[10]. But since Zosimus says that the revolt of Armorica was modelled on that of the Britons, we can hardly hesitate to believe that the two revolts had the same general character and that those who rebelled in the island were of a similar social status and had similar social aims with those who rebelled in Armorica. We cannot assume without evidence that Zosimus has made the gross mistake of supposing that a social revolution, such as took place in Armorica, was imitated from a 're-affirmation of loyalty' to Honorius, such as is sometimes said to have taken place in Britain. On the contrary, his evidence shows that the rebellion in Britain was directed against the Roman administration (irrespective of whether it was controlled by Constantine or by Honorius) and against the villa-owners. Nor should this fact surprise us, for, as Collingwood pointed out, the conditions for the existence of a Bacaudic movement were to be found in late Roman Britain to the same degree as they were to be found in late Roman Gaul or Spain[11]. Such movements are well attested in the fifth century throughout the rest of the Gallic Prefecture, and it would be remarkable if Britain were a solitary exceptional area where the peasants were in general content with their lot. Zosimus' phrases about the attempt of the Britons and Armoricans to live by themselves and no longer under Roman rule are entirely without parallel in the rest of his work. He speaks of many rebellions and usurpations, but the aims of all of them were quite different from those of the Britons and Armoricans in 409. On the other hand, when we turn to the contemporary Gallic Chronicles we find an exact parallel, for it is explicitly said there that the aim of the Bacaudic movement in Armorica in 435 was separation from the Empire[12]. And passages of Rutilius Namatianus and of Merobaudes, which tell of the suppression of Bacaudic rebellions, mention the restoration of Roman rule in areas where it had been overthrown[13].

What we must picture, then, is a Bacaudic rebellion which had its origin in Britain but quickly spread to the other side of the Channel. In Armorica the officials were expelled and an independent State was established 'in the same way' as had already been done in Britain; and it would hardly be consistent with Zosimus' language to suppose that the landlords, too, had not been treated 'in the same way' in Britain as in Armorica. Indeed, we may fairly claim that Zosimus' words are so explicit that the onus of proof rests with those who would reject this account of the events of 407–9 in Britain. I do not wish to suggest, of course, that there are no mistakes at all in Zosimus, VI, 5, 2 f. When he says that the Britons were compelled to rebel by the approach of the barbarians, he is confusing the position on the eve of the rebellion with that which had

[10] Zosimus VI, 5, 3, Rutilius Namatianus, I, 213–6, *Querolus*, pp. 16 f., ed. Peiper, cf. *Past and Present* II, 1952, 11–23.

[11] Collingwood and Myres op. cit. 303 f.

[12] *Chronica Minora* I, 660, s.a. 435 'Gallia ulterior . . . a Romana societate discessit', etc.

[13] Rutilius, loc. cit., Merobaudes *Paneg.* II, 8 ff.

existed on the eve of the proclamation of Constantine. And when he says that the rebels 'freed the cities from the threatening barbarians', he is confusing the action of the rebels with that of Constantine on his arrival in Gaul. Apart from these two points, however, his narrative is clear, consistent and credible.

He enables us to carry the story one stage further. We do not know whether the revolt was a general or a local one; but the historian would hardly have mentioned it at all, and perhaps the Armoricans would not have been tempted to imitate it, if it had been an insignificant one. At any rate it would seem that in 409 some of the British *civitates* had by no means thrown off their allegiance to the central government; for in that year Honorius wrote to 'the cities in Britain' bidding them look to their own defence[14]. Defence against whom? In view of his earlier narrative it is natural to assume that in Zosimus' opinion the enemy in question were not barbarians—he does not mention the Saxon raid of 408—but rebels in the island itself. It is generally agreed that the existence of the Emperor's letter implies that the *civitates* to which the letter was addressed had already written to Ravenna asking for help. They had turned to the central government, we may suggest, which their enemies had disowned. Their aim was to remain incorporated in the Empire, but the Emperor could do nothing for them. The incident gives us a glimpse of the opposition in Britain to the rebellion whose character Zosimus has sketched on an earlier page. The rebellion was not everywhere successful: the opposition (consisting no doubt of the officials, the villa-owners and their dependents, and perhaps the cities) was sufficiently coherent and organized to send a collective appeal to Honorius. It might be said, of course, that since the Saxon raid on Britain took place in 408 (p. 164, n. 8 above) the appeal to Ravenna was for help against sea-borne barbarian raiders rather than against native Bacaudae. But the suggestion is not wholly convincing, for the Saxon raid is dated to 408, the revolt broke out in 409, and the reply of Honorius was sent after the outbreak of the rebellion in 409. Those who appealed to Honorius, therefore, may not have been concerned with the raiders of the previous year, who perhaps had already left the country.

So far our argument has been based on the text of Zosimus, and we cannot safely go further. The site of the rebellion may well be revealed by archaeology (e.g. by evidence for the destruction of villas early in the 5th century); its outcome we can hardly hope to know. But if our conclusion—or rather, if the narrative of Zosimus—is accepted, it suggests very tentative answers to two further questions, though it must be emphasized that these answers cannot be more than hypothetical. Why did the Britons appeal to Aetius for help precisely in the year 446? There is reason to think that the Saxons inflicted a severe blow on Britain in 441–2[15]; why then did the appeal not come in 442 or 443? Why wait until four or five years had elapsed after the damage had been done? It is known that *c.* 444–5 there was yet another outbreak of the Bacaudae in Armorica, but it was suppressed shortly before 446, for the poet Merobaudes in his Panegyric on Aetius' third consulship speaks of the restoration of peace in Armorica[16]. Would it be far-fetched to suppose that, as in 409, so also *c.* 445 the rebellion of the peasantry had extended to both sides of the Channel and that the British landowners, hard pressed by the barbarians as well as by their domestic enemies, heard of Aetius' successful suppression of the Armoricans and hence invited him to come and suppress their British companions similarly? Although the barbarians alone are mentioned in the alleged extract

[14] Zosimus, VI, 10, 2.

[15] *Chronica Minora* I, 660, s.a. 441–2.

[16] Merobaudes loc. cit., cf. Constantius *Vita S. Germani*, XXVIII, XL, referring to the same revolt.

from their letter given by Gildas xx, yet civil wars are mentioned by him in the following chapter. If this suggestion is near the mark, we must assume (as indeed the appeal to Honorius in 409 shows) that the revolt of 409 had not been everywhere successful: the landed gentry still maintained themselves in some parts of the island, and in 446 as in 409 they were sufficiently well organized to send an appeal to the Roman government. If this suggestion is rejected, it at least provides us with a *terminus ante quem* for the second visit of Germanus to Britain. According to his biographer, Germanus had scarcely arrived home from the second visit when he became involved in the Armorican revolt, which apparently had not long since broken out, for Aetius' measures to crush it were only in process of being put into operation when Germanus arrived on the scene[17]. But this revolt had been suppressed when Aetius entered upon his third consulship in 446. The second visit, therefore, cannot be placed in or after 446 and may reasonably be dated to 444–5.

The second question to which our discussion suggests a hypothetical answer is, What is the significance of the fact that no Bacaudic rebellion ever took place in Gaul after the suppression of the revolt there in 444–5 ? Although the Bacaudae had been Aetius' bitter enemies in 435–6 and in 444–5, they fought for him against the Huns in 451, and *c.* 464 they were regarded as important allies of the central government[18]. What happened between 445 and 451 to bring about this dramatic change in Armorican politics ? Perhaps we have a clue in the fact that a British king named Riothamus was active in Gaul in 467 and was the ally of the Roman government[19]. It may be suggested as at least a possibility that the exodus of the British gentry to Armorica followed quickly on the failure of their appeal to Aetius in 446. Under heavy pressure from the barbarians and perhaps also, as we have ventured to suggest, from sections of their own peasantry, numbers of the British landowners along with their dependents fled to Armorica in and after 446, subjugated the dangerous peasantry of that region, and so caused the name of the Bacaudae to disappear from Gallic history[20].

Answers to these two questions can only be hypothetical ; but it must be emphasized that there is no reason to reject the words of our only authority for the events which followed Constantine's departure from Britain. His account is that (at least in some parts of the country) the Roman officials were expelled and an independent State was set up by some of the population. Until we can prove that Zosimus is at fault we must conclude that Britain is the only Roman province of which it can be said that a substantial part of it was freed from Roman rule as a result of an uprising by the poorer sections of the rural population against the officials and the landowners. And this rebellion was remembered in the island for many hundreds of years and was recorded by Nennius *Hist. Brit.* xxviii, xxx.

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[17] Constantius loc. cit. The second visit is perhaps hazardously rejected as unhistorical by Nora K. Chadwick, *Poetry and Letters in Early Christian Gaul*, London, 1955, 255 ff.

[18] Jordanes *Get.*, xxxvi, 191, Sidonius *Ep.* i, 7, 5.

[19] Jordanes *Get.*, xlv, 237, Sidonius *Ep.* iii, 9.

[20] Note Collingwood op. cit. 312, cf. K. Jackson, *Language and History in Early Britain*, Edinburgh, 1953, 12 ff.

# Books Received

*The inclusion of a book in this list does not preclude its subsequent review.*

Die Jungfernhöhle bei Teifenellern : eine Neolithische Kultstätte auf dem Fränkischen Jura bei Bamberg, by Otto Kunkel, C. H. Beck'sche Verlagsbuchhandlung, Munich, 1955. dm. 25.

Die Römerzeit in Österreich, by Arnold Schober. Rohrer Verlag, Vienna, 1953. 2nd edition. (An enlarged and revised edition of a work of the same title which appeared in 1935).

The Official Priests of Rome under the Julio-Claudians, by Martha W. Hoffman Lewis. American Academy in Rome Papers and Monographs, xvi, 1955.

Voices on the Wind, by Katherine Luomala. Bishop Museum Press, 1955. (A study of Polynesian folklore with translations of poems and stories).

Offa's Dyke : A Field Survey of the Western Frontier Works of Mercia in the 7th and 8th centuries a.d., by Cyril Fox. Published for the British Academy by Oxford U.P., 1955. (The definitive publication of a classic piece of field work. It combines the earlier reports published in *Archaeologia Cambrensis* between 1926 and 1934 with later comment. This topographical and archaeological survey of one of the major earthworks of the British Isles is a model of how such work should be done and should be studied by field workers in whatever part of the world they operate. The principles remain the same).

Small Objects from the Pnyx : II, by Lucy Talcott, Barbara Philippaki, G. R. Edwards, Virginia Grace. Hesperia : Supplement x. American School of Classical Studies at Athens, Princeton, New Jersey, 1956. $7.50.
(Deals with Classical and Hellenistic pottery and stamped wine jar fragments found in 1931–37).

Excavations at New Testament Jericho and Khirbet en Nitla, by James Kelso and Dimitri Baramki. Annual of the American Schools of Oriental Research, vols. 29–30, New Haven, 1955. (A dull presentation of some interesting material. Some of the least informative drawings of sections we have seen for a long time).

The Appreciation of Ancient and Medieval Science during the Renaissance (1450–1600), by George Sarton. Pennsylvania University Press. London : Cumberlege, 1956. £2.

A Short Guide to Roman York. Yorkshire Architectural and York Archaeological Society, 1956.

Roman and Saxon Withington, by H. P. R. Finberg. University College of Leicester, 1955. 6*s*.

Terracotta Figurines from Kourion in Cyprus, by John Howard Young and Suzanne Halstead Young. University Museum, Philadelphia, 1955. $5.50.

Studier i Bottnisk Stenålder i–v, by Carl-Axel Moberg. Kungl. Vitterhets Historie och Antikvitets Akademiens Handlingar, Antikvariska Serien 3. Stockholm, 1955. Swedish Crowns 15.

Archaeology from the Earth, by Sir Mortimer Wheeler. Penguin Books, Harmondsworth, 1956. 3*s*. 6*d*. (A reprint of the original edition).

CICERO AND THE ROMAN REPUBLIC, by F. R. COWELL. Penguin Books, Harmondsworth, 1956. 5*s*.

DOCUMENTA ARCHAEOLOGICA: Wolfgang La Baume Dedicata. Ludwig Röhrscheid Verlag, Bonn, 1956. (This Festschrift for La Baume's 70th birthday contains a number of articles on German pre-history).

GERMANIC ART DURING THE FIRST MILLENNIUM A.D., by WILHELM HOLMQVIST. Kungl. Vitterhets Historie och Antikvitets Akademiens Handlingar, Del. 90, Stockholm, 1955. Swedish crowns 25. (Deals only with pagan art. The illustrations are excellent).

BRYCHEINIOG, volume 1, edited by D. J. DAVIES. The Brecknock Society, Brecon. 15*s*. (The first number of a journal to be devoted to the study of Brecknock. This first number contains, amongst others, two major articles, on the geology by F. J. NORTH and on the Prehistory by H. N. SAVORY. The venture promises well).

SUR LES TRACES DES MARS CELTIQUES (ENTRE LOIRE ET MONT BLANC), by EMILE THEVENOT. Dissertationes Archaeologicae Gandenses, vol. III. De Tempel, Brugge, 1955. Belgian francs 250.

RITES OF THE STATE RELIGION IN ROMAN ART, by INEZ SCOTT RYBERG. American Academy in Rome, Memoirs XXII, 1955.

CORPUS NUMMORUM NUMIDIAE MAURETANIAEQUE, by JEAN MAZAREL. Arts et Métiers Graphiques, Paris, 1955.

HIPPONE LA ROYALE: ANTIQUE HIPPO REGIUS, by ERWAN MAREC. Service des Antiquités, Algiers, 1950. (A well illustrated and printed guide to the site).

L'AFRIQUE ROMAINE, by EUGÈNE ALBERTINI. Service des Antiquités, Algiers, 1955.

DEUXIÈME NOTE SUR L'ETHNOGRAPHIE, LA PREHISTOIRE, L'ARCHÉOLOGIE, L'ART MUSULMAN, LES BEAUX ARTS EN ALGÉRIE. Algiers, 1955.

VICTOR DE VITA ET SON OEUVRE, by CHRISTIAN COURTOIS. Service des Antiquités, Algiers, 1954. (These last five items are all issued by or for the Service des Antiquités of the Direction de l'Intérieur et des Beaux Arts of the Government of Algeria. They are a remarkable example of official enterprise ranging from works of distinguished scholarship to guides for visitors to ancient sites. The Service also publishes an excellent journal, Libya).

STREET NAMES OF THE CITY OF LONDON, by EILERT EKWALL. Oxford U.P., 1954. 15*s*. (This work by the leading authority on English place names gives nearly all street-names found before 1500 and some later ones. It is an essential book for all concerned with the history of London).

FURNITURE IN ROMAN BRITAIN, by JOAN LIVERSIDGE. Tiranti, London, 1955. 10*s* 6*d*.

TREASURE IN THE THAMES, by IVOR NOEL HUME. Muller, London, 1956. 21*s*. (A popular account of antiquities found in the Thames. Though making no claims to be scholarly and giving no references the collection of the material into a single book may be found of value).

THE ROMANS WERE HERE, by JACK LINDSAY. Muller, London, 1956. 25s. (An attempt to cash in on the present popular interest in Roman Britain. Describes in an interesting but uncritical way the Roman occupation and will be of use to many general readers. Nothing in it for the specialist).

# Some Recent Books and Articles

*The inclusion of a book in this list does not preclude its subsequent review*

Der Stand der Sachsenforschung, Archäologisch geschen, by Fritz Tischler, Duisburg. 35 *Bericht der Römisch-Germanischen Kommission*, 1954 (de Gruyter, 1956), pp. 21–215. [An important monograph on Saxon origins from an archaeological angle, with full list of references].

Neue Bernsteinschieber aus Griechenland, by V. Milojčić. *Germania* 33, heft 4, 1955, 316–19. [Discussion of the amber ornaments of Kakovatos type from the recently found shaft-graves at Mycenae, and their bearing on the chronology of Mycenae and Central Europe].

Die Geschichte der Basalt-Lava Industrie, von Mayen und Niedermendig : Teil II : Mittelalter und Neuzeit, von F. Hörter, F. X. Michels und J. Röder. *Jahrbuch für Geschichte und Kunst des Mittelrheins und seiner Nachbargebiete*, 6/7 Jahrgang (1954–5), 1955, 7–32. [The second part of the article whose first part was published in summary translation in Antiquity 29 June, 1955, 68–76].

Man in the Beginning, by W. Howells. G. Bell & Sons, 1956. 18*s* 6*d*. [' The story of our own origins ' by the late Professor Hooton's successor at Harvard].

Studies in Ancient Technology. by R. J. Forbes. E. J. Brill, Leiden. Vols. 1 and 2, price 16.50 guilders (=$4.35) each ; vol. 3, price 19 guilders. [We hope to review this important publication in a future issue].

Die Megalithgräber der Iberischen Halbinsel : der Westen, by Georg and Vera Leisner. De Gruyter (for the German Archaeological Institute), 1956. Vol. 1, part 1. DM. 100. [The second instalment of this splendid Corpus ; we hope to review it later].

Ur Excavations : Vol. 4 : The Early Periods, by Sir Leonard Woolley. British Museum, 1955. (Received April, 1956). £5 15*s*. [A further instalment of the official report of these celebrated excavations, to be reviewed later].

Indo-European Languages and Archaeology, by Hugh Hencken. American Anthropological Association, Dec., 1955. [A masterly survey of the field by a fully qualified archaeologist].

Fore and Aft Sails in the Ancient World, by L. Casson. *The Mariners' Mirror*, xlii, Feb., 1956, 3–5, Plates 1, 11. [A refutation of the general theory that ancient mariners could not tack against a head wind, documented by illustrations of sprit-sails and one lateen sail dated 2nd to 4th centuries A.D. R.W.H.].

Phoenicia and the Ivory Trade, by R. D. Barnett. *Archaeology* ix (Summer, 1956), 87–97.

Piecing Together the Past, by V. Gordon Childe. Routledge & Kegan Paul, London, 18*s*. [Review to be published later].

The Prehistory of East Africa, by Sonia Cole. Penguin. 2*s*. 6*d*. [Review to be published later].

# Notes and News

LINDHOLM : A Late Iron Age cemetery and an Early Mediaeval settlement.

In prehistoric times, as well as today, the Limfjord was not actually a fjord, but a sound connecting the two seas east and west of Jutland. No wonder then that so many archaeological finds show that there was a lively activity in the regions along its shores. The Limfjord was an important thoroughfare for navigation until about A.D. 1100 ; one of the trade-routes between Scandinavia and Western Europe passed through the fjord. Six large cemeteries of the 8th to 10th centuries are found north of the fjord showing the importance of this territory in this period. One of these lies on a hillside at Lindholm on the western outskirts of Nørresundby. The site has been known to be a Viking cemetery since the 80's, but excavations did not begin until 1952 when they were conducted by the Historical Museum at Ålborg under the auspices of the National Museum at Copenhagen.

The cemetery turned out to be the biggest known, 650 graves being uncovered, dispersed over an area of 4 hectares, and the limits have not yet been reached.

In contrast to the other similar cemeteries known this one was in use as early as about A.D. 400, but really intense use did not take place until the 7th and 8th centuries. The cemetery was in constant use until about the middle of the 10th century. The oldest graves are inhumations, and so are the graves from the 10th century. In the intervening centuries they are all cremation burials. All the graves are perfectly preserved because they were covered by drifted sand in layers from 0.5 m.–4.00 m. That is why this cemetery has thrown a new light upon so many hitherto unsolved problems. At the same time it cannot be denied that the sand makes the business of excavation rather complicated.

All the cremation graves have certain things in common, and it has been possible to follow the burial rites to a certain extent. The dead man was wrapped in his clothes and burned with varying quantities of grave goods, and sometimes accompanied by a sheep, dog or horse. The residue from the pyre was collected and placed in the cemetery, often with a clay pot on top of the charred bones. The whole was finally covered with a protecting layer of earth, four or five inches deep, which thus forms a ' cremation patch '. So far, these burial rites are common during all this time. This is the appearance of about a quarter of all the graves, preserved to us thanks to the covering drift sand. But the rest of the graves are surrounded by stone settings of different shapes. In the part of the cemetery dating from the 7th and the 8th centuries the stone settings may be triangular or oval and sometimes even circular or rectangular. But it is significant that the nearer we come to the Viking age, the more common become ship-shaped stone enclosures. Evidently there was a close connection between the piratical life of the Vikings and their ideas about life in another world after death. In both places a ship was indispensable. Naturally it was too costly to give a real ship to everyone who died. That was reserved for the more wealthy, as is well known from Norway and Sweden. It would be cheaper to suppose the dead man able to make use of a counterfeit ship. And so the grave-ships at Lindholm consisted of stones set in this form.

The Danes were not converted to Christianity until the second half of the 10th century. Nevertheless they gave up cremation at the beginning of that century, so at Lindholm the latest graves are inhumations. Like the earlier graves they do not contain many grave goods, and often nothing at all. But axes, coins and an amulet representing the hammer of the god Thor show that the inhabitants at Lindholm were not yet christianized.

Naturally a cemetery of such dimensions demands a habitation in the neighbourhood, and about half-a-mile north of the cemetery the presence of a settlement is observed. Until now only two house sites and five wells are recorded. The pottery found here shows that this habitation is contemporary with the cemetery. The wells are admirably preserved. Being more than 3 m. deep they reach the ground water, which has preserved the wood settings.

Time passed, the Viking period came to an end, and the cemetery was completely covered with sand and forgotten. On top of it we have found a settlement of the 11th century. Unfortunately no wood is preserved in the sand, only the post-holes remaining. It is not yet proved, but evidently this habitation must be a descendant of that settlement recorded north of the cemetery. No other explanation could be possible. At this time Ålborg on the other side of the fjord already was a well known town, so it would be only natural to find a corresponding settlement on the north side of the fjord near the little Lindholm river. Here ships passing the fjord could find a convenient shelter.

The 11th century houses of Lindholm are of different plans. Two of the houses show affinities with those known from the Viking fortress of Trelleborg, being oval in shape, with curved walls. That feature alone would be enough to indicate an 11th century dating, and objects found inside the houses as well as in the numerous middens give the same dating. Of most importance are the coins, 15 in all. The oldest is one struck by Canute the Great, and the youngest one by William the Conqueror. The rest were struck by different Danish kings, except for two struck by the German emperors Conrad II and Henry III.

As far as we can see, this 11th-century habitation was abandoned about A.D. 1100 for some reason or another, perhaps because the 12th century was, by comparison, so peaceful that there was no longer any need to live on a windy hilltop ; and so possibly the settlement once more removed southwards to form the present Lindholm.

THORKILD RAMSKOU.

## EXCAVATIONS AT SALAMIS

A notable event for the Cyprus Museum has been the re-erection, recently completed, of the great marble statue of Apollo from Salamis. Found in numerous fragments in the Antiquities Department's current excavations, its reassembly has been a slow and delicate task. Only now, with the head fixed and the scaffolding removed, can it be seen as a whole for the first time. There can be no doubt that it ranks as one of the major works of Roman sculpture in the Greek manner.

The god is represented in the nude, as the lyre-player. The head has abundant curly hair and the rather effeminate facial character that Hadrian's favourite Antinous inspired in the sculpture of his time.

This Apollo was set up in the Gymnasium of Salamis with others of the pagan gods. It survived the abandonment of that building, probably in the mid-4th century earthquakes, and served to adorn it again after its restoration as a public bath building of the Christian city, perhaps as much as 200 years later. When the baths were destroyed in the Arab raids of the 7th century the statue fell and the head rolled into a nearby swimming tank, whence it was recovered in 1954. The prominent place given to the pagan god in the Christian building illustrates in striking fashion the growth of an antiquarian interest in classical mythology, when with the church firmly established, the revival of paganism was no longer a danger.

Other marble sculptures from the same building have been displayed with the Apollo in the Cyprus Museum. They include a torso and head of Herakles, headless

figures of Nemesis Asklepios and Isis. All these are approximately contemporary with the Apollo. The building from which they come is likewise of the Roman period (though its present marble colonnades were introduced in the Christian restoration, replacing damaged Roman originals of stone). But that one of the Hellenistic gymnasia of Salamis (there are known to have been three) was on the same site as indicated by inscriptions of the 3rd century B.C. which have been found there. A fine marble head of Aphrodite of Praxitelean style, which was found in the recent excavations and is exhibited elsewhere in the Cyprus Museum, perhaps belonged to one of the statues which adorned this earlier gymnasium.

The buildings of the Salamis gymnasium have not yet been completely excavated and the Antiquities Department plans to resume work there shortly.

## NAGA CEREMONIES

Arising out of a recent article on the Needfire Ritual by Thomas Davidson (ANTIQUITY, XXIX, 132–6) we have been able to obtain the following observations from Mrs U. V. G. Betts, to whom and our other correspondents in this connection we offer our thanks.—EDITOR.

The Zemi Nagas have an important winter ceremony,* known as *Hga-ngi*, in which the kindling of ritual fire appears together with the erection of large stones, the cult of the dead, and human sacrifice—the latter now mercifully reduced to the spearing of wooden effigies. The various ceremonies last a fortnight.

To begin with, large flat slabs of stone are brought in and set up over the graves of those who have died during the year; 7 feet by 5 feet and 6 inches thick is about the average size. These slabs are set up as capstones to small ' burial chambers' in the upper filling of the grave-shaft, though the body itself lies in a cavity to one side of the shaft and some six feet below the ' burial-chamber '. This ' chamber ' is not normally visible, but on one or two old village sites erosion has exposed a few and they appear as false ' dolmens '.

Erection of the stones is followed by the last offerings and the final ceremonies for the dead, and then the ghosts are dismissed from the village by the priests in a singularly eerie ceremony. On the next day the village is further cleansed of any other intruding entities, apparently those of the elemental and jungle-spirit class, and with this ends the old year.

The new begins with the kindling of ritual fire in each of the ' bachelors' halls '. The operator may be anyone skilled at it; he uses a split piece of dry wood, bamboo tinder and a bamboo thong. Each householder then takes home some of this ' clean ' fire and makes a new hearth in a corner of his house, and here for some days the males of the household eat separately, the women continuing to use the old, unclean domestic hearth. During this period the men sleep apart and use different utensils, and even furniture, from the women.

Following this comes the last and most spectacular ceremony. Enormous and highly stylized wooden effigies representing human victims are set up at the two gates of the village, and the men, bucks and boys go in procession in full dress with the drums beating and spear them with reed darts. Before erection, the effigies are subject to various

* It has been suggested that *Hga-ngi* may be a winter solstice ceremony, but all the Zemi feasts known to me are dated by a lunar calendar, and the series to which *Hga-ngi* belongs are dependent on the harvest, and therefore variable. The winter solstice, however, almost always falls within the fortnight which *Hga-ngi* covers.

taboos ; they are said to be ' treated like a king ' at this time, and ' to weep ' when being speared. The prosperity or otherwise of the village in the coming year is foretold by the number of hits scored.

On the penultimate day of the festival ritual fire is again used in a ceremony to ensure success in hunting. It is not, however, kindled anew, but is fetched from the hearth of the ' bachelors' hall '. These ' bachelors' hall ' fires, extinguished and re-lit only at the New Year ceremony, are kept burning throughout the year, and as they are never used for cooking and the halls are virtually taboo to women, they retain their ' clean' status. They are drawn upon whenever ' clean ' fire is required for ritual purposes—for example, when the family moves into a new house built for a Feast of Merit, to acquire increased social status, the house fire is then lit for the first time with this ' clean ' fire.

Fire-making by friction is not restricted among the Zemi to ritual purposes. It is a normal method of making fire in the absence of matches, and can be quickly done by a skilled practitioner. I have seen it used on the line of march when someone wanted a cigarette, and the whole process took five minutes. This included finding the materials and making the apparatus. During the war I spent some weeks teaching jungle-craft to the R.A.F. and sometimes got them to try their hand at fire-making. The R.A.F. usually grew incandescent long before the tinder did.

Besides the large flat gravestones, the Zemi erect four other types of stone monument, including stone rows. While they do not put up the very large stones that the Angami and some other tribes do, they transport gravestones annually, and their country is an excellent field for a study of the technique. If the ground is level (which it never is), or slopes downhill, the stones are dragged on a massive wooden sledge. Uphill, or across a slope, the stone is built into a scaffolding and is carried by some 80 or 100 men.

U. V. G. Betts.

## TANGIER QUERN-QUARRY

Dr E. Cecil Curwen writes :—

My wife and I recently spent a couple nights in Tangier, and while there we visited the Cave of Hercules, which is a few miles from Tangier on the Atlantic coast. I daresay you may know it. Much to my surprise, in the dark interior of the cave, I found men at work by candle light, busy quarrying querns ! The quern-stones they were making were of small diameter and relatively thick, with flat grinding surfaces. I was extremely annoyed with myself for not having brought my flash apparatus with me, otherwise I might have got photos of the quarrying in progress. I found, however, that the original cave appears to have been enormously enlarged as the result of this quarrying, for nearly everywhere the walls and roof showed the semi-circular concavities from which querns had been hewn. The only place where I could photograph this was in the external wall above the landward entrance of the cave. The enclosed photo (PLATE VII) shows this fairly well. You can see where numerous querns have been taken, leaving semi-circular concavities one above the other, with a nearly circular hollow at the base of each, representing the bed from which the last quern in each vertical row was taken.

Unfortunately there was no time to stop and watch the process but I could see that the method was to peck away the rock in a circular groove round each quern, using a steel pick. I was not able to see how they lifted the quern when the circular groove was completed.

[NOTE. In *Archaeology in the Field* by O. G. S. Crawford (Phoenix House 1954), there is a chapter on ' Querns and Quern Quarries '. Ed].

# Reviews

THE ETRUSCANS. *By* M. PALLOTTINO. *Translated from the Italian by* J. CREMONA. *Penguin Books*, 1955. 295 *pages*, 32 *plates*. 2*s*. 6*d*.

This book, a translation of the third edition of *Etruscologia* (Milan, 1955), is a study of the Etruscans divided into three sections: I, the Etruscans and their place in the history of Italy and of the Mediterranean; II, aspects of the civilization of Etruria; III, the problem of the language. The first part deals with the origins of the Etruscans and gives a brief description of their history in Italy and as a sea power, based almost entirely on Greek and Roman literary sources. In the second part, the author discusses the material remains of Etruscan civilization and the information about Etruscan political and social life that can be obtained from them. The third section gives an account of the present state of knowledge of the language of the Etruscans.

In his foreword, Mr Pallottino warns the reader that his book 'attempts to be neither a work of analysis nor a rigid and impartial exposition . . . it seeks to give an up-to-date interpretation of the people and of the chief problems concerning them, an interpretation striving towards serenity and sound documentation but nonetheless personal and vivid. A number of obscure aspects of the civilization of Etruria and firm convictions . . . will here be brought into the full light of day and weighed and defended with tenacity and wealth of argument'.

The firm conviction argued most tenaciously is that the Etruscans were an autochthonous people; to this the author devotes the first quarter of his book. Apart from the theory of a northern origin, no longer considered tenable, there are two widely held beliefs about the question of the origin of the Etruscans. One, supported by Herodotus, is that the Etruscans were an immigrant people from the Near East who settled in the territory of an older population; the other, supported by Dionysius of Halicarnassus, is that they were in fact the descendants of this older population. Adherents of the former stress the now undisputed fact that the Etruscan language was not Indo-European but had Aegean and Anatolian connections; adherents of the latter point out that the material remains of the 'early Etruscan' culture are typologically descended from or identical with remains of the earlier 'Villanovan' Iron Age culture in Tuscany. Such few remains as cannot have been derived from the Villanovan culture show a strong Orientalizing flavour which believers in immigration explain as a reflection of the customs, taste and technical knowledge of the Etruscan invaders while believers in autochthony maintain that all these new elements came to Etruria by trade and imitation in the great spread of the Orientalizing style during the 7th century B.C. Autochthonists explain the Aegean language spoken by the Etruscans in historic times as a remnant of the language (or one of the languages) spoken in Italy before Indo-Europeans invaded the peninsula.

Mr Pallottino is a passionate autochthonist, although he qualifies his statements occasionally, particularly in the foreword, where he describes the Etruscan nation as one 'which, as a historic entity, became formed and defined in Italy, between the banks of the Tiber and Arno, even though many ethnic and cultural contributions may have reached it from near or far off regions, especially during the earliest stages of its development'. In these terms of course no one would deny that the Etruscan civilization was autochthonous. The same might be said of the civilization of America or Australia.

But even in the more usual meaning of the word, the author believes that the Etruscans were autochthonous. For him there is no break in the continuity of the culture of Tuscany during the Iron Age; the difference between the 'Villanovan' culture of the 9th and 8th centuries and the 'early Etruscan' culture that followed it is the difference between a geometric style proper to the earlier period and an Orientalizing style of the same sort that affected every Mediterranean civilization during the 7th century. The differences are the inevitable differences of taste and fashion, fostered by trade; and the sudden expansion of wealth and civilization in Tuscany in the 7th century is due to a happy combination of the situation and receptivity of the population. The fact that the Etruscans of the 7th century regularly buried their dead while the Villanovans had cremated theirs is explained as a resurgence of the older Aeneolithic and Bronze Age rite of inhumation after a period of enthusiasm for cremation in the early Iron Age; the author points out that inhumation is never entirely absent from Villanovan cemeteries.

To these entirely valid arguments for the autochthony of the Etruscans Mr Pallottino adds a peculiar theory of the history of the languages of Italy and linguistic arguments that are by no means accepted by all specialists in this field. On p. 26 he offers a linguistic map of Italy in the 6th century B.C., in which a great block of peoples in the north-west and the islands—Liguria, the Po Valley, Rhaetia, Tuscany, Sardinia, Corsica and western Sicily—is shown as speaking non-Indo-European languages. These peoples he supposes to have been an older population pushed north and west out of the centre of Italy by successive waves of Indo-European peoples coming from the south-east, who took possession of the whole central spine of the peninsula and flowed westward to the coast south of Rome but were apparently halted north of Rome along a line roughly corresponding to the 12th parallel or the Via Flaminia. A subsequent wave of Indo-Europeans from Illyria would account for the languages along the east coast, particularly Venetic and Messapic.

On this hypothetical linguistic pattern, the author bases an important conclusion for his thesis, that the Indo-Europeans who established themselves in south and central Italy, in territories where inhumation is the normal burial rite from the Stone Age to Roman times, must have inhumed their dead, while the majority of the older linguistic stocks, the 'Ligurians' of Comaccio and Golasecca, the Villanovans proper of Emilia and the southern Villanovans of Tuscany and Latium, adopted cremation. Cremation is an intrusive rite in Italy and Mr Pallottino admits that it is difficult to understand why a new burial rite should have been adopted almost exclusively by what he believes was the older linguistic stratum. To bridge the difficulty he asserts that the appearance of the new rite should be dated some time after the historic linguistic pattern was on its way to being settled.

It is true that a new burial rite proves nothing more than a change in religious belief, though among primitive peoples such a change usually also means the arrival of a new tribe. But a new language cannot possibly be spread except by people who speak it, and Mr Pallottino does not explain how he believes the Indo-European languages could have been established in Italy first in the south and the mountainous centre among the very cultures that show no evidence at all of a violent change in civilization at any period. It is in the north that radical cultural changes appear in the Bronze and Iron Ages, and it is surely more logical to see the spread of the intrusive Indo-European languages, as Whatmough and others do, in the spread of the intrusive cremation cultures.

In the north-western section of Italy, only in the Rhaetic dialect have real traces of a non-Indo-European language akin to Etruscan been found, and these can be explained

(as Livy explained them) as left by the Etruscan colonists of the 6th century B.C. Nothing whatever is known about the languages spoken in the Po Valley before the Etruscan colonization and the very scanty remains of the Ligurian dialects are usually regarded as Indo-European. In short, the question of whether Etruscan was an old or a new language in Italy in the 7th century is brought no nearer solution by the evidence and arguments offered in these chapters.

However, the civilization of the Etruscans in historic times is the subject of most of this book. Of the three sources of information about this civilization, Greek and Roman literary references, material remains, and inscriptions in the Etruscan language, it is surprising how much we must still rely on the first for our knowledge ; the material remains provide no more than a social background. Mr Pallottino's treatment of this material is brief and on the whole excellent, though not entirely without errors and in some cases not up-to-date, particularly his discussions of architecture and portraiture. The section on the Etruscan language seems long drawn out and over meticulous in the account of the struggles of scholars to read the language which, though a fascinating puzzle in itself, in the end seems able to tell us so pitifully little that Livy had not already told about the Etruscans. EMELINE H. RICHARDSON.

HAIR EMBROIDERY IN SIBERIA AND NORTH AMERICA. *By* GEOFFREY TURNER. *pp.* 83, 26 *figs.*, 16 *plates*, 2 *maps*. *Occasional Papers on Technology*, 7, *Pitt Rivers Museum, Oxford. O.U.P.* 15*s*.

It is scarcely necessary to say that this paper will be indispensable to curators of ethnographical museums, since there can be few, if any, who do not acquire this most useful series as a matter of course, and this example is up to their highest standard. Mr Turner probably knows more than anyone in this country about North American Indian and related material, and his association with the Pitt Rivers Museum has been long and intimate.

Hair embroidery is often confused with porcupine quill work, in fact the two may appear on the same object, and Mr Turner shows how they may be distinguished from one another. He also gives clear explanations of the techniques used, with admirable diagrams, and notes on where they occur. It is shown that true embroidery was almost certainly introduced by French nuns, who took to using aboriginal materials for, it is suggested, economy's sake, in spite of the difficulties caused by the shortness of the hairs. The aboriginal techniques were couching, in which the hairs were sewn onto the surface of the material with sinew, and later cotton, thread ; weaving, on a sinew warp and supporting weft ; and false embroidery. It is very curious that the latter has a limited eastern distribution, chiefly Huron and Iroquois, whereas the technique as applied to vegetable materials in bags and baskets is particularly characteristic of the west, in recent times among the Nez Percé and some north-west coast tribes, and as long ago as 7000 B.C. in a cave in Oregon. There is a chapter on horsehair piping, in which it is concluded that it is quite a late development, possibly replacing work in bird quill, and occurring chiefly in northern Canada.

The paper concludes with a chapter on problems of origin and relations. Caribou (or reindeer) and moose hair seem to have been used for decoration wherever these animals were found, except among the Lapps, but it is uncertain where this use originated and when. In Siberia, it seems to occur chiefly among reindeer breeders, who use reindeer hair in preference to moose, and if its origin is bound up with the domestication of reindeer, it can not be of great age, but in view of the possibility of diffusion in either direction across the Behring Strait, it need not have originated in Asia at all. Mr Turner

says that, in America, hair and porcupine quill were regarded as essentially one medium, and then suggests that the use of hair may be older than that of quill because of its wider distribution, but in order to do so he has to explain away some rather slight archaeological evidence in a not altogether convincing way. Is it not possible that the distribution reflects to some extent that of the animals concerned ?

The paper is well illustrated, and the standard of both drawings and plates might satisfy even the Editor of ANTIQUITY ! One museum curator at least is already looking at his treasures with new eyes, and hopes very much that Mr Turner may be persuaded to put more of his learning on paper. G. H. S. BUSHNELL.

THE TRACK OF MAN. Adventures of an Anthropologist. *By* HENRY FIELD. *London, Peter Davies*, 1955. *pp.* 434+*index.* 16 *pages of plates.* £1 1*s.*

One could hardly imagine a fuller or more exciting life than Henry Field's. He had every advantage of education and upbringing and seldom lacked funds ; but not everyone who has these opportunities knows how to make the fullest use of them, as Dr Field certainly did. During the past twenty-eight years he estimates he has travelled half a million years on ' the track of man ' and everywhere he met and was inspired by the best brains, not only of science but of politics and letters as well.

His life's work has been two-fold : anthropological studies of the inhabitants of Syria, Iraq and Iran ; and the organization of the Hall of Prehistoric Man and the Hall of the Races of Mankind in the Museum of Natural History, Chicago. If he had not devoted his life to anthropology, Dr Field would have made an excellent journalist. His account of travels and adventures in pursuit of these two objects is never dull ; often it is amusing, sometimes thrilling and occasionally moving. Examples that spring to mind are the capture of blind beetles with l'Abbé Breuil in the depths of La Piletà cave, anthropological measurements of the Yezedi devil worshippers, emotions on visiting Dachau. Dr Field was there when the chariot was uncovered at Kish and was amongst the first archaeologists to see Jemdet Nasr. Perhaps these few examples will give an idea of the scope of the book.

The author is at his best when he sticks to facts ; when he romanticizes the reader sometimes feels embarrassed or puzzled, as when he states that ' Neanderthal man was probably the first to seize a woman and protect her from animals and other men ', or describes a Cro-Magnon couple as having black hair and dark eyes. There are many compensations, however, and the book is not meant to be a profound anthropological study. As an autobiography or the ' adventures of an anthropologist ' (its sub-title) it makes very entertaining reading. SONIA COLE

LASCAUX AND CARNAC. *By* GLYN DANIEL. *Lutterworth Press*, 1955. 15*s.*

Amongst the innumerable letters that all archaeologists get there are many which ask for information about accommodation and transport in the neighbourhood of famous monuments. Such letters cost the writer less than Baedeker, especially if a stamped and addressed envelope is not enclosed. There was a need for just such a book as this, and his colleagues will be grateful to Dr Glyn Daniel for writing it and thereby saving all concerned a lot of time and postage. The information relates to two of the most frequented regions of France—Brittany with its megaliths and the Dordogne region with its caves and paintings. The former is by no means an easy region for the visitor because of the lack of adequate maps, without which some of the sites—Le Lizo, for instance—are not easy to find. Parc Guren is another ; I saw a megalithic tomb which was so described

locally, but I am still in doubt whether what I saw was the tomb in which the famous faience bead was found. There is a great need for an enlarged edition of the French 1 : 80,000 map showing the exact position of at least the more important sites. A welcome feature of the book is the information about hotels ; these are uniformly good, markedly contrasting with their British counterparts. Dr Daniel becomes quite lyrical in praise of the good food and wine, and he is fully justified. He might, however, have added a warning that some of them (but not the superb hostel at La Trinité-sur-mer) shut with a bang after September and remain closed for the whole winter.

We look forward to the book of adventure which the author intends to write one day about French museums, but why confine it to France ? That keyed-up sensation (' shall I be able to get in ? ') is felt just as strongly in some other countries (e.g. Italy and Greece), where the eager seeker after knowledge should go armed with an electric torch, a screwdriver (or set of skeleton keys) and a reserve supply of self-control.

The illustrations, from French photographs, are superb and very well reproduced, and the excellent maps (by Mrs Daniel) help to fill the need mentioned above. We strongly recommend all our readers, whether they have been there or not, to buy this book and take it with them next time they go. It is well up-to-date and will, we hope, be kept so by demand. O.G.S.C.

ON THE TRACK OF PREHISTORIC MAN. *By* HERBERT KÛHN. *Translated by* A. H. BRODRICK. 216 *pp.*, 36 *photographs* (4 *in colour*), 32 *line drawings*, 13 *diagrams*, 2 *maps*. *Hutchinson, London*, 1955. 21*s*.

This rather painstakingly 'popular' book purports to present ' something of what has been discovered concerning the life of prehistoric man, of their creations and of their hopes and fears '. This claim and the title are misleading, for the book is in fact an account of a dozen or so well-known sites of prehistoric art in France and Spain. Each chapter relates a visit to a different site and there is little cohesion between them ; each is really a separate essay. The form of presentation is largely conversational, conversations between the author and hotel-keepers, guides and chance acquaintances, as well as discussions with such authorities as Peyrony, Count Bégouen, Passemard and others. This technique of presentation makes the book very readable, but one wonders if the conversations, some held as long ago as 1923, were recorded and whether the authorities quoted would accept responsibility for the statements attributed to them.

The illustrations are outstanding though some are over-familiar friends. The book will serve as an interesting introduction to prehistoric art for the newcomer, but one is left to cogitate on the fine distinction between ' popularization ' and ' vulgarization ' of science. B.D.M.

DIE KUNST ALTEUROPAS. *By* HERBERT KÜHN. *Kohlhammer, Stuttgart.* 1954 (*received May* 1955). *DM.* 28.80.

There seems to be no end to the procession of art-books dealing superficially with the works of an earlier age. We tolerate those which provide good reproductions, as does Mr Kühn's ; and for that reason we discount the text. This one contains much of an ' arty ' kind of appreciation and some errors. It is untrue that Egyptian beads have been found in megalithic graves in 79 instances ; in this country none have been so found (p. 84). Messrs Ventris and Chadwick have negatived the statement about Cretan script and race (p. 88). Evans' chronology is accepted in spite of later improvements on it ; but today no one would put the beginning of the Early Minoan period at 3500

B.C., nor did Evans (p. 90). The stone idol from Cyprus on Plate 28 is dated 3000–2000 B.C., but it belongs to a class dated *c.* 2200–2100 by the best authorities. (For other criticisms of the dates given readers are referred to a review by Dr Marija Gimbutas in *Amer. Journ. of Arch.* for April 1956, p. 188. The most fantastic is 60,000 years for palaeolithic art.)

But who reads the text of these art-books ? They are found useful because of their illustrations, and these (and particularly some of those made from the author's own photographs) are really excellent. Some close-ups are so good that one almost suspects the genuineness of the originals, e.g. the badly drawn and lifeless bison's head (Pl. 10) and the cats (Pl. 14 b), both from Trois Frères, Ariège.

The pictures chosen are not all old friends, and there are some (e.g. the Toronto figurine, Pl. 47 a and, in colour, Pl. III, opp. p. 96) which will be new to many readers. They range from the Palaeolithic to the Middle Ages. O.G.S.C.

POETRY AND LETTERS IN EARLY CHRISTIAN GAUL. *By* N. K. CHADWICK. *pp.* 342. *London : Bowes and Bowes.* 1955. 35*s.*

As her preface explains Mrs Chadwick turned to contemporary Gaul for light on the period of British history between ' the departure of the Romans and the establishment of the Saxon kingdoms '. The book has become a full survey of the literary material of the 4th and 5th centuries. The resulting scholarly account of early Christian Gaul may be commended to all students of the period for its intrinsic interest, but the material must be severely controlled if used to illustrate contemporary British conditions ; there were real differences both between the two Roman provinces and in the character of their invaders. C. A. RALEGH RADFORD.

MODELS OF DAILY LIFE IN ANCIENT EGYPT FROM THE TOMB OF MEKET-RE AT THEBES. *By* H. E. WINLOCK. *Harvard Univ. Press* (*London, G. Cumberlege*), 1955. £3.

This is a long overdue account of a discovery made no less than thirty-five years ago by the late H. E. Winlock, working for the Metropolitan Museum of Art, New York. It consists of models representing every-day life in Egypt about 2000 B.C., and it is therefore of outstanding importance. The models cover the chief important aspects of that life—the house itself, cattle-breeding, bread and beer making, spinning and weaving, carpentering, and also the tribute of offerings and boats and canoes of several kinds. The book consists of descriptions and a catalogue of the models, photographic plates and drawings. There are also plans and sections, and views of theobjects when first found. All this is excellently done, especially the drawings. There is also reprinted Winlock's own vivid account of the actual discovery itself, first printed in *Scribner's Magazine* for February, 1921. The photographic reproductions are adequate but rather lifeless and flat ; this may be partly due to the use of an unsuitable method of reproduction, but it is also due to an unimaginative use of lighting background. That is brought out in cases (such as Plate 34) where a side-light has been successfully used, and in the really good photographs of the objects before removal from the sirdab. There is no reason why as much trouble should not be taken to photograph these priceless relics as is normally given to what are called ' works of fine art ', but it is constantly observed that art-museums are themselves often unskilled in the fine art of photography. But, as was stated above, some of the lifelessness may be due to the method of reproduction used. Apart from this, the book is a welcome addition to the record of life in Egypt. O.G.S.C.

NEOLITHIC ART: A JERICHO HEAD